

# **Growers Study Tour- PMA/USA 2008**

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Ausveg Ltd

Project Number: VG08115

## **VG08115**

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# **Horticulture Australia Ltd.**

## ***Project VG08115***

**(Completion Date December 2008)**

**AUSVEG California & PMA Fresh Summit Study Tour**

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**Purpose of the Report**

To provide a Final Report on the outcomes of this project and to meet the reporting requirements as per the agreement with HAL.

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Date of Report  
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## **Media summary**

A group of nine growers plus Helena Whitman, AUSVEG Environmental Manager, recently participated in the Ausveg Study Tour and PMA Summit in the United States of America.

The tour, endorsed by the Vegetable Industry Advisory Committee (IAC) and subsidised by the National Vegetable Levy, followed a similar highly-successful grower's tour conducted in 2006. It incorporated farm visits in the prime vegetable growing regions of California and attendance at the Produce Marketing Association (PMA) Fresh Summit Conference in Orlando, Florida.

In California the group visited several farms including Deardorff Family Farms and Tanimura & Antle, Associates Insectary (IPM for fruit growers), Cal Poly's Irrigation Training and Resource Centre (IRTC), and two supermarkets.

Passing through many vegetable growing regions between Los Angeles and San Francisco gave the group a good perspective on the size of some of the operations. The most significant thing being how labour intensive most operations were – not surprising when the cost of labour is US\$7 per hour base plus piece rate bonus.

After several days in California the group flew to Orlando Florida to attend the 2008 PMA Summit which was a real eye-opener for sheer scale. The exhibition area was 640,000 sq ft or over 14 acres with more than 17,000 people from 70 countries attending the exhibition.

There were workshops on various topics however most centred on Food Safety and Traceability issues and were US-focused. The recent salmonella outbreak in the US had been a hard lesson learnt. The immediate impact on the industry with consumers stopping purchase of fresh tomatoes lasted well over a month and the industry was only just recovering. It cost the industry over US\$150M in lost sales and drove many farmers out of business.

The group all considered the tour worthwhile and a great learning experience, with the take-home message being – the Americans are really good at promoting themselves and the Australian Industry can learn from this – the need to promote ourselves and our Industry better.

The other clear message was that as an Industry we can't compete on a cost of production basis (mainly due to higher labour costs) however, our growers are better innovators, manage limited resources better and look after their environment more responsibly. Sustainability practices such as water consumption and IPM were not as good as those practiced by Australian growers.

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## **Introduction**

The purpose of the Tour was to enable a group of 12 vegetable growers to attend the 2008 PMA Summit in Florida preceded by a tour of the Salinas Valley in California.

The objective of the tour was to expose growers to technological, marketing and business development initiatives being undertaken by US growers and to encourage contact between Australian and US growers. Growers would see production and whole of supply chain systems operating in a large-scale, profitable manner and be able to examine current and future issues common to both countries.

The tour was part of the overall strategy to raise the number and strategic understanding of leaders in the Vegetable Industry. This professional development activity would provide an ideal opportunity for the participants to broaden their understanding of modern business practices and to develop strategic alliances with others in the same industry.

Industry leaders require an understanding of technological and other innovations. The study tour would expose participants to examples adopted by overseas growers as well as those at the cutting edge being showcased at the PMA conference.

There is a need for growers who have already displayed some commitment to the Australian Vegetable Industry to develop their understanding of broader issues which influence the industry, both locally and internationally. This tour provided that opportunity.

The need for Australian vegetable growers to undertake formal development programs has been emphasised in several recent Industry studies. These include the Industry's Strategic Plan VegVision 2020, and the 2008 Vegetable Industry Training Needs Analysis funded by the Commonwealth under the AVIDG initiatives. Reports from a similar tour in 2006 confirm the immense benefit gained by the participants.

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## Outcomes

Some of the outcomes of this project may not be immediately evident; however the opportunity to view production and harvesting methods, retail outlets, growing conditions and general produce marketing in the US provided the growers with ideas and insights into possible marketing methods for their own business.

Growers commented on the apparent lack of consideration of environmental impact during production – water supply did not seem to be an issue nor did the continuous use of the soil, compaction through machinery and lack of organic matter. There were very few if any windbreaks to reduce soil erosion. Generally they commented that Australian growers were much more conscientious of their environmental impact and long term sustainability of their farms and resources.

All participants agreed that the experience had been worthwhile, that they had gained a new confidence in themselves and their methods and some good ideas about promoting themselves and their produce. They highly recommended that other growers take up this opportunity in the future.

The group did comment that they would have preferred to have met in Sydney the day before the tour commenced to get to know each other and ‘set the scene’ for the tour and visits.

The positive aspects:

- Kathy Coatney was a great tour leader who was able to ‘think on her feet’ filling in gaps and making arrangements for visits if there were specific things the growers wanted to see
- Kathy’s general knowledge
- Tanimura & Antle’s farm visit – they could have spent all day there
- The interaction between the whole group – everyone looked after everyone else regardless of age or interests and there was never a cross word exchanged
- Sharing of information and experience

There were however some criticisms of the organization of the tour:

- Lack of contact following the lodgment of expressions of interest until departure
  - tickets and tour information not being finalized until a few days before departure (the falling dollar did have some impact on this)
  - their suggestions for specific visits of interest not being included – some visits were irrelevant or of little benefit
  - they would have preferred to depart Australia as a group from one location
  - generally not impressed with Quadrant
  - lack of confirmation of visits in California – Kathy had been a last minute substitute and she found many of the visits hadn’t been confirmed
  - the constant backtracking to locations – did not flow and time wasted
  - the bus driver’s incompetency
-

## Discussion

Our tour began when we were met at the Los Angeles Airport by Kathy Coatney a free lance journalist who had grown up on a dairy farm and spent her high school years working on her grandfather's orchard. Cathy now works for various agricultural publications covering dozens of commodities.

Following the long flight we had a leisure day driving around LA, including Hollywood, the beach, and other touristy spots seen in movies or on television. Unfortunately we didn't see any stars apart from those on the Walk of Stars.

## Deardorff Family Farms



The second day took us through a large range of horticultural farming areas – mostly acres and acres of strawberry farms and on to Deardorff Family Farms located in Ventura County, California. This is a large (600 acres + 700 acres leased) family vegetable operation with one eye on its heritage as a fourth-generation family farm dating back to 1937 and the other eye on the future, in which sustainable and organic markets will play a growing role.

## Storage



We were met by Scott Deardorff, one of the owners, who showed us their cooling and storage facility. Packing and storage is not located on the farm and all produce is brought to the packhouse and then across the road to be vacuum cooled and put into conventional coolrooms for storage. The vacuum coolers are out in the open.

*Photo: Vacuum Cooler*

## Packing



*Photo: Automated bin dump*

We then moved on to view the packing shed. The group were surprised to see that the grading equipment was an old plant made mainly of wood with an older colour sorter grafted into a grader that sized with punch-hole belts. However the automated bin tipper was of interest and able to empty 135 bins/hr this was limited by the packout capacity of 30,000 cartons/day.

## Quality Assurance – Food Safety

We were introduced to David Cook, the operation's Food Safety Manager. David was in the process of writing up their Food Safety Program. From our observation there would be some issues particularly with the extensive use of wooden crates at picking and the wooden structures within the packing shed.

The Food Safety Program was being introduced as a response of the recent salmonella outbreak and the “Leafy Greens Marketing Agreement” that had been formed between Californian growers to develop a set of food safety standards for the industry. One aspect of the agreement is that growers are subject to unannounced food safety audits.

David also explained that Ventura County had regulated that all spraying must be approved by the County – if a grower wanted to spray he would need to make application to the County and then get written permission to apply the spray. The application requires information as to what spray, rate of application, site, etc. This process could take between one and four days and applied to all sprays including oils. They still use methyl bromide for fumigation and fertilise with chicken manure.

The County was also very strict regarding re-development of farming land. Any application would have to be supported by the community. Generally agricultural ground was retained as such. All processing including packing was done off-farm in zoned areas – this led to many efficiencies especially in transport.

Production centred around vine-ripe tomatoes with other crops being grown such as celery, mixed lettuce, cabbage, chilli peppers and strawberries. The Deardorff’s market across several labels, spanning markets from conventional to organic and are in the midst of a 6 year program to become totally organic. Labels used:

- *Deardorff Family Farms* – this label is reserved for their organic and pesticide-free produce.
- *California Highland Ranch* – seasonal vine-ripe tomatoes
- *Sir William* – all other produce

### Production



Scott then invited the group to view tomato picking in the field.

*Photo: Workers picking into wooden crates on wheelbarrows*



Tomatoes were all transplanted and grown on stakes and string but more closely planted than here. Tomatoes were picked and packed using wheel barrows with wooden boxes. Pickers were paid on a flat rate plus a piece rate. Pickers wore a bar coded tag which was read into a meter each time they tipped tomatoes into the bin. This method is used to track how many boxes each picker picks.

*Photo: No shortage of workers*



*Photo: Scanning worker information for picked crates*

Interesting facts:

- To purchase land in the area is about \$60,000/acre. Leased land is about \$2,300/acre
- Water mainly comes from wells that are down about 900 to 1200 feet.
- Water is allocated, however can be bought for \$115 an acre foot.
- Most of the irrigation is either drip or aluminium
- All labour is Hispanic
- Supervising staff (that we saw) speak both Hispanic and American

On leaving the farm we passed a massive greenhouse structure (identity withheld) but were not allowed entry. The existing glassed area was 80 acres with a further 40 acres currently being installed. The company had recently received a fine of over US\$1M for excessive water use – they had not been recycling water and hence were installing a huge dam at the front of the property to enable water reuse.



## Associates Insectary



We were met by Production Manager Bill Grant and his assistant Manuel. The Insectary started as a grower-owned co-operative in 1908 and is celebrating 80 years at the vanguard of integrated pest management (IPM). It serves 8,500 acres of citrus and avocado orchards with orchard monitoring, pesticide applications, and releases of a variety of predators and parasites that they rear at their facility in Santa Paula.

The co-operative is fully grower owned and provides members with pest control advice, beneficial organisms and spray applications when needed. Part of the program is the annual release of beneficials onto member properties, however they may occasionally have to use chemical sprays when there is no 'bug' control.

They mainly produce beneficials for the cosmetic appearance of fruit, that is, the pests that they deal with such as mealy bugs mainly affect the appearance of fruit. They mainly raise *Cryptolaemus* beetles, *Aphytis melinus* (wasps), *Rumina decollata* (snails) and *Neoseiulus californicus* (mites) and adapt their breeding program to emerging pests.

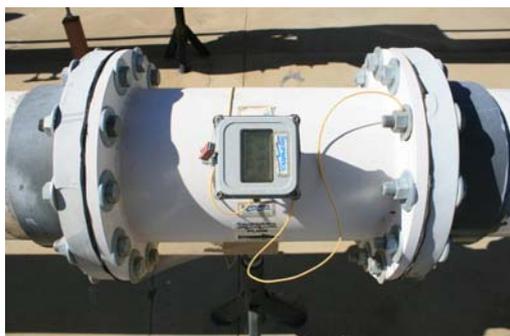
## California Polytechnic State University – Irrigation Training and Resource Centre



The Irrigation Training and Resource Centre (IRTC), as the name implies, focuses on irrigation practices and efficiencies using the latest technologies that are available as well as testing various irrigation equipment. The Department gets its funding mainly from associated industries enabling the facilities to be under the Department's and not the University's control.

Dr Stuart Styles, Director of the Centre, addressed the group and then led a tour of the facilities. He spoke about different types of water delivery systems including sprinkler spacing, drip irrigation and the best type of drip tape for uniformity of water for the crop. He said that the largest problem currently faced by horticulturalists in the USA, is the lack of irrigation delivery uniformity, i.e. sprinkler nozzles and sprinkler spacing. "The growers simply don't understand the importance of keeping irrigation systems uniform" quoting the optimum sprinkler spacing to be 30 ft x 30 ft.

He was impressed by the widespread use of drip tape irrigation by the group and in general by Australian irrigators and displayed various types of tape being tested at the facility discussing their qualities.



The group was shown the latest in metering equipment being tested – a magnetic meter that clamps onto the pipe and is battery/solar powered. It was proving to be a cheap cost effective way to monitor water flows.

Projects being worked ranged from testing of simple gates giving constant water flows, drip tapes, up to state wide irrigation systems being developed within Cal Poly for the U.S. and overseas clients.

IRTC is also responsible for hands on training of all aspects of irrigation to all sectors of the industry running irrigation trials and field work with growers.

Most of information from their trial work is available on the web at: <http://www.cimis.water.ca.gov/cimis/infoEtoOverview.jsp> or through publications that are available through their bookshop including:

- *Irrigation Evaluation Manual*
- *Drip & Micro Irrigation Design & Management*
- *Surface Irrigation Manual*
- *Fertigation*

### **Costco Wholesale**



Costco Wholesale is a large retail outlet that sells everything from jewellery to fresh produce. They also have in-store a chemist, hearing testing facility and eye testing. We called in to see how they presented their fresh produce which is sold in bulk. Although an unscheduled visit, the produce manager was most accommodating giving us his time and explaining their operation and answering questions.

What was most interesting was the volume and range of pre-packaged produce. The use of packaging was extensive and impressive and catered to the working population – all ready to go. Prices of produce worked out to be cheaper than in Australia; however this is not surprising when taking into account cost of labour.

### **Speedling Incorporated – Seed Company**

We made an unscheduled visit to Speedling Inc to view their seedling production process. Unfortunately we were unable to take photos. Jeff Watkins their Sales Representative gave us a guided tour of the facility. They grew the grower's own seed – celery, tomatoes, cauliflower, peppers and broccoli. They also grew poinsettias for one of the supermarket chains as a Christmas special.

- Seedling trays were irrigated by sub irrigation - polystyrene trays are floated in concrete channels. The same system is also used to convey the seedling trays.
- Irrigation water is harvested from shed roof and is stored in three concrete tanks, holding approximately 25 ml. All water is recycled and re-used multiple times.
- The seedling / tray line used is none other than the Australian designed and built Williams system.
- Cost of seedling in US dollars; Celery \$22.00 per thousand and Broccoli at \$6.00 per thousand. The seed cost is not included as growers supply own seed.
- There were 4 major seedling growers in the region.

### **Dr Whyatt Brown**

We were also met by Dr. Whyatt Brown, Associate Department Head of the Cal Poly Horticulture and Crop Sciences Department, who lectures on vegetable production and post-harvest physiology. He has conducted extensive research on the production, packaging and modified-atmosphere handling of pre-cut fruits and vegetables, from artichokes and broccoli to

strawberries. Dr. Brown has also published his work on the use of biodegradable films for packaging pre-cut vegetables.

Dr Brown explained that California was responsible for about 50% of the vegetable produced and 80% of fruit in the United States. Other information that he provided:

- 1,500 acres was considered a small farm as they needed to be able to supply the supermarkets with year-round supply
- The prime concern for farmers was water supply.
- Farm gate value of California's vegetable production was US\$6b with a total of US\$11b for the USA.
- The next big crop for California was almonds with 565,000 acres in production and a further 100,000 coming on.

## Tanimura & Antle



Tanimura & Antle is a lettuce powerhouse that is harvesting and packing lettuce every day of the year somewhere along the West Coast.

The Tanimura & Antle story is a true-life California parable, the story of two families facing both adversity and good fortune in Salinas. The Tanimuras arrived in the US from Japan, farmed, suffered the indignity of internment during World War II (while two sons served in the U.S. Army), and returned to farming to build a highly successful lettuce operation.

The Antles escaped the Dust Bowl of Oklahoma and worked the lettuce fields during the tough Depression years. Eventually they bought their own stake in Salinas and built a lettuce operation of their own, working side-by-side with their neighbours, the Tanimuras, for a generation.

The two families joined forces in 1982 and have become renowned for their innovations in production, harvest, handling and packing. They work around 24,000 acres and during the 50's 60's and 70's were the biggest packer of lettuce in the US.



The Company has around 200 permanent staff, 115 of whom have been there 20 plus years and averages 7,000 staff per year. They value staff highly and offer many incentives including:

- A comprehensive benefit package that includes medical, dental, vision and life insurance.
- A profit sharing program.
- Access to an on-site preschool and childcare facility with bilingual instructors.
- An innovative safety program that rewards employees who are accident free.
- An annual paid training and orientation program.
- Regular opportunities and training for advancement.
- Service bonuses and end-of-season incentive pay.



We were introduced to **Gary Tanimura**, head of the Salinas farming operation. Gary was very giving of his time and after providing us with some history of the operation welcomed us to visit the farm and view operations.

Mr Tanimura explained that the consumption of pre-packed lettuce had fallen so they now pre-packed celery hearts, cos lettuce and a red and green oak lettuce. All harvesting and packaging was done in the field on specially designed trailers.

Tanimura & Antle farms over 60,000 acres with 18,000 acres under hydroponics plus contract growers across the US, Mexico and South America. They also export lettuce and broccoli with extensive exports to Japan. During the 1990s they purchased 1/3 share in Earthbound Farm the largest branded organic supplier in the US and then in 2004 acquired Denice & Felice.

Fertilizer costs had gone up 200% and water had risen from \$80 dollars an acre foot to \$800 an acre foot. In the Salwackie Valley they only had 35% allocation so they had to put 8,000 acres on drip. They use an in-house spraying contractor using a helicopter when possible otherwise it was ground spraying. They also apply 100% compost.

### Lettuce harvesting and packing



*Photos: Packed lettuce*

### Broccoli harvesting and packing



### *Celery harvesting and packing*



### *Cos lettuce harvesting and packing*



There is a lot of information available including statistics at:  
<http://www.taproduce.com/index.html> and makes for interesting reading.

## Earthbound Farms



Our next port of call was Earthbound's Carmel Valley farm where there is an emphasis on marketing direct to public and building consumer awareness and R&D.

The Carmel area is a very touristy area and also home to some quite wealthy people based out of L.A. and San Francisco. Earthbound leases its 30 acre farm block from one of its most famous residents and ex-Mayor Clint Eastwood.

Earthbound Farm – one-third of which is owned by Tanimura & Antle – started as a backyard garden. Today, it produces an array of organic vegetables on 40,000 acres with the help of approximately 150 farmers and serves as a national standard-bearer of organic farming. It is the largest organic operation in the world.

Here it was obvious that Halloween was around the corner with many mothers and children selecting their pumpkins for decoration.



## General Photos

*Fresh produce for sale in China Town San Francisco*



## PMA Conference

The PMA Summit was held in Orlando Florida at the Orange County Convention Centre which is located 10 miles from the city of Orlando and amongst the adventure and theme parks, a very touristy area. Some figures of interest:

- The Convention Centre has well over 4 million ft<sup>2</sup> of exhibition space and meeting rooms.
- The area utilised for the PMA Exhibits was over 14 acres in size.
- More than 17,000 people attended the Exhibition with 1,500 registering for the workshops.
- There were 800 exhibitors from 70 countries

### Day one



Following registrations there was a Lunch General Session featuring the PMA President, Bryan Silbermann and the major sponsors. The session entitled “A Fresh Outlook on the State of the Industry” touched on the issues facing the horticultural sector and topics that would be elaborated on during the workshop series.

Bryan gave a good indication of the direction of policies that the PMA intends to or has already adopted in regards to traceability and food safety. The PMA is also leading the way in encouraging young people into the industry with the Pathways Scholarship program. One of the emerging trends Bryan detailed was a growing trend towards “locally grown” produce and the fact consumers are becoming increasingly aware of “food miles”. The PMA’s research indicates this sector of the market could be as high as 10% and rising (compared with organics at 3%) indicating massive ramifications for the industry and potential emerging markets for local growers.

The group separated to attend sessions of specific interest to them.

Workshops during the afternoon:

- **A Candid Discussion of Foodborne Illness Investigations**  
The recent salmonella outbreak brought some serious issues to light. Perhaps most crucial is the need to know how foodborne illness investigations are conducted in order to determine the source of such outbreaks and understand the roles and responsibilities of those involved in the investigation. A panel of public health authorities, government officials and industry representatives provided an insight into the investigative process:
  - It can take up to one month from detection to identification.
  - Methods of contamination of highest concern were knife contamination during field harvesting and field packing in general.
  - The recent outbreak cost the Tomato Industry over US\$1M and the Industry was still recovering.
  - Most contamination occurs post-farmgate with 52% through food service and 48% at processing or at home.
- **Managing Generation “Why”: Harness the Talents and Skills of the Next Generation**  
Motivating and management this new workforce called Generation Y – what makes them tick, how to build their loyalty and how to make them productive.

- **Produce Managers Panel: What Are Customers Really Thinking?**  
What do customers want to see in produce departments? Do their purchases reflect their needs and desires? Panelists discussed how they responded to customer demands and how they worked with suppliers to increase sales. The panellists spoke of the credit crunch not affecting their business. By saying that the restaurants were empty but their shops were busy suggesting that more people were choosing to eat at home. They also said that the marketing and merchandising was very important tool in selling more product.
- **Raise the DataBar**  
Why integrate DataBar technology into your current business operation? Discussion centred on a new type of special ‘barcode’ that will allow traceability to extend right down to individual pieces of fruit and vegetables. The proposed benefits of such as system include improved accuracy of traceability systems, increased efficiencies, and increased productivity.
- **The Global Economy and the Produce Industry: A Micro View**  
This session covered from the devaluation of the dollar to the increasing buying power of China and India. It also covered rising fuel costs and world conditions affecting the global economy. Deborah Perkins, a young Australian working in the U.S. for Rabobank, attempted to gaze into her crystal ball, clouded by the fact that from the time she researched her report to when she presented it the U.S. dollar had skyrocketed against most other currencies. One interesting fact was that the Australian dollar was by far the most affected of all the major currencies mentioned on the day.
- **What’s Hot with COOL?**  
The latest information on Country of Origin Labeling
- **What Do They Know That We Don’t: A Look at European Floral Trends**

## Day Two

The day started with a hearty but different breakfast featuring an interview of Jack Welch, former Chair and CEO of General Electric. The interview was conducted by award winning reporter Meryl Comer, co-anchor of Nation’s Business Today.

Jack who took GE from a 4 to a 400 billion dollar Company gave a very frank interview detailing some of his thoughts on today’s economic outlook. Some of his key suggestions were to view an economic downturn as an opportunity to move ahead of your competitors and focus on cutting unnecessary costs. He said he believed the economy would move back into positive growth towards the end of 2009. He also believes that there are un-paralleled opportunities for smart business leaders, saying “buy ‘em or bury ‘em when it comes to your competition in these troubled times”.

Workshops for the day:

- **Am I The Leader I Need To Be?**  
Teaching through discussion, example and proven techniques to develop leadership skills. Development of an action plan to raise Leadership Quotient.
- **Creating Sales by Motivating Floral Consumers**
- **Finding Your Place in Whole Chain Traceability**  
This session discussed the new bar coding system that was to be introduced by US buyers to enable the tracing of produce back to paddock. It was proposed that the system be introduced incrementally and be in place by 2012. Labelling would occur on cases and pallets and be synchronised at all levels. This would also enable capture of outbound information to retail level.



The key element would be the bar code which would include:

- GTIN – Global Trade Item No (Company number + item reference number)
- Lot or batch number
- Packing or harvest date
- Human readable description

This would require considerable outlay by all sectors including printers to produce the labels as products or lots changed. Suppliers would need to obtain GTIN from customers and all branded product would require its own GTIN. The labelling will be required by all customers from all suppliers regardless of country of origin.

- **Food Safety + Risk Management = Profitability**

Food Safety isn't only a social responsibility it is a critical risk assessment/risk management tool. The session helped determine the areas of a business that were most vulnerable and how to measure the impact of a crisis. It was about building an effective risk management program for the business.

- **Hold on for an Economic Roller Coaster Ride**

Looking at consumer spend during turbulent times.

- **Packaging with Impact**

More than just protection for the produce or increasing shelf-life, packaging must demand attention and create an impact. The workshop dealt with the area of effective packaging in the produce and floral industries. A panel of industry leaders in this area such as Leonard Batti, an acknowledged veteran and “guru” in the packing industry, and Shannon Boase, who has founded her own environmentally friendly packaging company showed off winners of PMA's Impact Award, recognising excellence in packaging development. Time was also spent on the subject of “compostable” plastics and how they are only compostable industrially and not under ordinary backyard conditions.

### Day Three

The breakfast speaker for the morning was Torie Clarke a former Pentagon Spokeswoman and ABC presenter. Torie had been involved in previous Presidential Campaigns and spoke about the election process and her thoughts about the candidates.

Workshops for the day:

- **Beyond Strategic Planning Made Simple with Julie Krivanek**

An interactive session to understand strategic planning for the business

- **Food Safety: Keeping Your Business Healthy**

Panel discussion on the latest (US) regulatory updates and initiatives.

- **Saving Dollars and Making Sense of Sustainability**

Presentations were given by representatives of

- Wegmans Food & Pharmacy Inc – focus on reduced use of electricity by changing to more efficient shop lighting, fuel reduction by increased efficiency, waste reduction by recycling and reusing were possible and introducing sustainable packaging including stronger plastic bags so that they can be reused and buying local, eco-friendly products where available.
- Stemilt Growers Inc – main focus on reduced chemical use through IPM and organic applications, energy efficiency, composting of waste produce and recycling or reusing other waste. The redistribution centre has been upgraded to

reduce annual truck mileage by carbon equivalent of 3000 cars and lighting to reduce electricity.

- SYSCO Corporation – main focus to have suppliers (72 suppliers, 160 factories, 4200 growers) become more sustainable through reduced chemical use through IPM, fertiliser avoidance, recycling of products and waste.
- Dole Food Company – leading provider of fruit & vegetables (84,000 employees over 90 countries). Their main focus is on their employees, environment and community. They aim to reverse harmful trends to the environment and conserve resources through their:
  - carbon neutral program in Costa Rica – seek to neutralize carbon footprint from growing, harvesting, packaging and distribution. This is done through reforestation and purchasing of carbon offsets and other efficiencies
  - green container program - more energy efficient reefer equipment. Ship rail vs. road when feasible
  - shipping modifications
  - water conservation
  - recycling program – reuse plastic bags and straps to make baskets, etc, recycle old pallets into school chairs for the Philippines – trees are planted in return as offset
  - organic program

All gave an outline of how they were working toward making a positive impact on society through environmental, economic and social actions – the three “P’s” Planet, People & Prosperity.

Most of the presenters focused on their improved management of natural resources, waste and energy through more efficient use of electricity, fuel (buy local where possible) and waste (packaging) reduction. Water efficiency and soil management did not appear to be high priorities.

- **Telling your story to Drive Sales and Generate Profits**  
Every company can benefit from telling their story and creating a positive brand image.
- **The Global Economy and Your Bottom Line – A Macro View**  
An analysis of the current state of the global economy – causes for the dramatic shifts and how the world economy will affect businesses and what is likely to happen in the future.

## Day Four

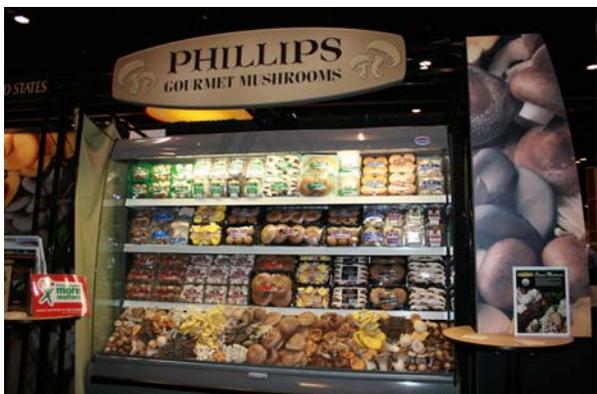
The speaker for the breakfast session was Dave Corsi, PMA Chairman-Elect. Dave spoke about how Harley-Davidson made a dramatic rebound by becoming a ‘must have’ product as distinct from a commodity.

Close of sessions.

## Exhibition



The Exhibition featured more than 800 Companies from 70 countries. As mentioned previously the area covered was over 14 acres. Photos of exhibits can be viewed or downloaded from <http://www.pma.com/press/fs08gallery/>.





## Grower Reports

### Peter Cochrane

#### *Deardorff Family Farms*

The first farm that we visited was the Deardorff Family Farm which is a fourth generation family farm, which began in 1937. Scott Deardorff showed us around. They own and also lease land in the Oxnard/ Ventura area. To buy land in that area is about \$60 to \$790K an acre. The water mainly comes from wells that are down about 900 to 1200 feet. This water is on allocation and they can also buy in water at about \$115 an acre foot. If I understood the system correctly the water is held in dams up stream of the aquifers and the aquifers are replenished as required. Most of the irrigation is either drip or aluminium pipe I did not see any set sprinklers when touring around. They grow about 600 acres of celery and 800 acres of field tomatoes, which produces between 20 to 30,000 cartons per day and other crops.

We could not get over the way the tomatoes were picked and packed. They were using wheel barrows with wooden boxes on them to pick the tomatoes. All the tomatoes are picked at a piece rate where each worker has a bar code on their shirt and when they tip the tomatoes into the bin at the end of each row a person scans the bar code. This is how they keep track of how many boxes each one picks.

At the pack house, bar for the automatic bin tipper it was just as antiquated, most of the grader was made of wood and I thought that it posed a very real food safety risk which was later acknowledged by their food safety manager. Because they have access to plentiful cheap labour there is no urgency to have an efficient pack lines as we have here in Australia.

None of the packing of the product is done near where the product is grown and even when the tomatoes are packed they have to be transported over the road to be cooled where the main vacuum coolers are out in the sun and after the product is cooled then it goes into a shed into conventional coolrooms. The tomatoes are also waxed I think with a vegetable wax and they expect a shelf life of two weeks.

Growers have also to apply to the local government person in your area for a permit to spray before each spray. They have also to detail basically what, where and when they are going to spray. They usually get a response back in 24 hours, I think also that they may have to justify at times what ppp they are asking to use!

In the same area we came across a green house operation that had 80 acres under glass with another 40 or so planned to be built soon.



Another thing that I could not get over was that they left all their machinery out in the open and at best it was fenced in, in a chain wire mesh enclosure.

The pay rate for labour was around \$8.00 per hour.

*Photo: Peter Cochrane & Steve Newman discussing Food Safety with David Cook, Deardorff's Food Safety Manager*

There have been some very serious fresh food contamination issues that the growers have had to face recently. The fall out from one has seen some tomato growers go broke because of the way the outbreak was handled. At first the Government said that the outbreak was caused from people eating contaminated fresh tomatoes so as a consequence of that announcement sales of fresh tomatoes virtually stopped overnight.

They later attributed the food poisoning outbreak to imported peppers from Mexico, but unfortunately it was too late for those growers that lost their farms. Part of the response has been to form a “Leafy Greens Marketing Agreement” between Californian Growers where a set of food safety standards have been developed by the industry. Part of the agreement also means that the growers are now subject to unannounced food safety audits.

### ***Associates Insectary***

This insect factory started in 1904 by growers to grow insects for the biological control of pests in various crops.

The co-operative is fully grower owned and provides members with pest control advice, beneficial organisms and spray applications when needed. This approach is the cornerstone of any sustainable farming program. We could not get over how antiquated the spraying equipment was. I think it was left over from world war one. They mainly raise *Cryptolaemus* beetles, *Aphytis melinus* (wasps), *Rumina decollata* (snails) and *Neoseiulus californicus* (mites). They adapt their breeding program to emerging pests. Membership is based on a dollar rate per acre of crop and then a cost per use but it is a co-operative so money may come back to you, also as part of the program they release good bugs four times a year on member’s properties.

In the Venture area about 20,000 acres of oranges have been pulled out mainly Navels and Valencia’s with some of this land being planted with strawberries.

### ***California Polytechnic State University – Irrigation Training and Resource Centre***

The area of focus here is on irrigation practices and efficiencies using the latest technologies that are available. The department gets its funding mainly from associated industries which means that the facilities are under the department’s control. Dr Stuart Styles Director of the Centre spoke about different types of water delivery systems including sprinkler spacing’s, drip irrigation and the best type of drip tape for the job to get uniformity of water for the crop. The next big thing will be magnetic meters that clamp onto the pipe and are battery/solar powered, they will be a cheap cost effective way to monitor water flows.

He also spoke about the CMIS weather monitoring system that has 120 weather stations around the area to help farmers make informed decisions regarding watering, managing crops and spraying.

They have sites on campus where they run irrigation trials and also do field work with growers. He told us how a greenhouse operation was fined \$1.5 million for going over their water allocation so they are working with them to better use their water. Most of the outcomes are available on their web site or you can actually purchase the papers.

### ***Tanimura & Antle***



We were very fortunate to be shown around by Gary Tanimura. His family started the business in 1919. It has moved and grown to be one of the leading grower businesses in the USA with his partner Rick Antle. They work around 24,000 acres, in the 50s 60s and 70s they were the biggest packer of lettuce in the States. They then went into cut and pre-packed lettuce.

*Photo: Steve Newman and Peter Cochrane with Gary Tanimura*

They are now a strictly commodity based company. Because of the pre-packed lettuce consumption has gone down. Gary said that his best customer was the rubbish bin. They pre-pack celery hearts, cos lettuce and a red and green oak lettuce in the field on specially designed trailers.

He was saying that fertilizer costs had gone up 200% water had also risen from \$80 dollars an acre foot to \$800 an acre foot. In the Salwackie Valley they only had 35% allocation so they had to put 8000 acres on drip.

The company has around 200 office staff at the head quarters in Salinas Valley. The company rates very highly its employee and community involvement; they offer scholarships to children of employees and on-site preschool services. Free bus transport to the fields. They provide medical, dental, vision and life insurance to employees and their families including a panel of Mexican doctors to help their employees. They also have a profit sharing arrangement with their employees as well as safety incentive programs and an open door policy that allows the employees' access to company owners and managers.

They also practice sustainable farming practices, water and energy conservation and recycling with being socially responsible.

All this is listed on their web site as well as printed literature.

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## Steve Newman

### 1. What Is Your Take Home Message From The Tour

The Americans have cheap labour and grow a lot of vegetables – in large volumes. They don't seem to show as much initiative as Australian growers in some ways. They are very good, possibly better than Australians at marketing and merchandising.

### 2. What If Anything Did You Learn

The Americans have a lot of regulations for spraying, but they have a whole company that takes care of the monitoring all the way from spraying through to the paper work. The companies that we saw were very big and seemed to move up and down the west coast chasing the best seasons. They seem to grow a lot at one time then move to the next place. It seemed that the growers were the instigators of new product.

### 3. Was The Californian Component Of Tour Worthwhile And If So Why – What More Would You Like To Have Seen



The Californian part of the tour was very interesting – looking at the farms and meeting the growers. The disappointing thing was that we didn't see a great deal of farms in Salinas - we seemed to go around in a circle a lot on the bus! But to see the scale of production in that country was great. I would recommend it to anyone that has the chance to visit the California and see the scale of the ranches there. They are phenomenal.

*Photo: Joe Castro, Steve Newman and Dave Herbert inspect broccoli at T&A*

### 4. Short Report On Any Sessions You Attended At The PMA Conference

One interesting session for me at the PMA conference was “What are customers really thinking.” The panellists spoke of the credit crunch as not affecting their business. By saying that the restaurants were empty but their shops were busy suggested that more people were choosing to eat at home. So I am hoping that if/when things get tough in Australia the same thing will happen here too. They also said that the marketing and merchandising was very important t in selling more product – I thing we could do a lot better here in Australia.

### 5. Summary Of What You Got Out Of The PMA Conference

The PMA conference was a great eye opener for me to see the amount of people in one place was amazing. The 14 acre display room took two days to look through. The way they presented their product was very good and was very important to all of their sales – to show new customers what they grow and how they package it.

### 6. Any other useful information.

The Americans don't seem to be very environmentally friendly. Australia is the best place to work and live. I do now know why the farms over there are so big – they have so many people to feed!

The contacts I made with the other Australian farmers on the tour were invaluable. They were all extremely easy to get along with – it made the trip even more enjoyable.

## **Brent Storey**

Having the opportunity to tour the growing regions within California, and to attend the Produce Marketing Association convention in Florida was a fantastic experience and has given me an insight into the massive scale of farming in the United States. Equally, it was great to spend time with a group of innovative growers and share ideas. The main message I gained from this experience has been that the key drivers for farmers in the US are food safety, security and traceability rather than mechanisation of farm processes. It is likely that these issues of food safety, security and traceability will become of greater importance to Australian food producers over the next 5-10 years.

### ***Lessons from California Farm Visits***

The first impression of US farming as we passed through Ventura and Salinas is the incredible scale. A large Australian vegetable grower may farm over 1000 acres per year, whereas the major US farmers grow upwards of 30,000 acres per year.



*Photo: Brent, Tally, Dave and Grant taking in the sights on arrival at LA*

The second impression is that the processes remain extremely labour intensive. Cheaper and more reliable labour has meant that farmers in these regions have not had the need to implement widespread mechanisation of labour processes. Planting was still a semi-automatic process, whilst harvesting at T&A was still done by hand. In this area, Australian farmers appear more advanced in their use of technology. However, farmers in the US have more sophisticated food-safety, traceability, and labour management strategies than are adopted in the average Australian farm.

The focus on food safety starts at the field level, where all workers are required to wear disposable hairnets and gloves. Each bin of produce is then labelled so that traceability back to the paddock exists. US farmers have learnt from several food-borne illness outbreaks that the key to restoring consumer confidence is to be able to identify the source of the contamination. This strategy has been seen to lessen the broader industry impact of an outbreak.

### ***Summary of PMA***

Throughout the conference there were several key themes carried by the key speakers, which were reflected in the types of products on display at the trade show. The information sessions focused around several key themes: continual advancement of food safety & food security systems; increased emphasis on traceability; shift towards 'locally grown' produce; continued expansion of ready-to-eat meal products; and the state of the economy.

The first session I attended entitled 'Raise the Databar' centred around discussion of a new type of special 'barcode' that will allow traceability to extend right down to individual pieces of fruit and vegetables. The proposed benefits of such a system include improved accuracy of traceability systems, increased efficiencies, and increased productivity.

The breakfast session on Saturday featured Jack Welch, former CEO of General Electric providing his own opinions and insights into the state of the economy, and how businesses could effectively deal with difficult economic times. Some of his key suggestions were to view an economic downturn as an opportunity to move ahead of your competitors, focus on cutting

unnecessary costs, and that he believed the economy would move back into positive growth towards the end of 2009. These were two of the more interesting sessions that I attended.

The night-time receptions were incredibly valuable networking opportunity, as many of the growers took the opportunity to converse with key industry figures such as Rob Robson, Michael Simonetta, and Bob Antle. The trade show was mind-blowing with thousands of stalls and many innovative packaging ideas. It was a great opportunity to talk with different businesses about which products were attracting the greatest customer attention.

### ***Suggestions for Future Tours***

The general consensus from the growers that went on the tour was that it was excellent value for money. I completely agree with this sentiment. If I was to do this tour on my own it would have cost me more than three times what I paid. I do have some feedback as to which visits were particularly interesting and how similar future tours could be structured.

#### *Most valuable tours*

- Cal Poly IRTC
  - o Very useful research being conducted here and quite relevant to Australian conditions (water-efficiency projects)
- Product Marketing Association
  - o Incredible range of products on display
  - o Great speakers
- Tanimura & Antle
  - o Incredible insight from Gary Tanimura, he was extremely open and friendly

#### *Least valuable tours*

- Earthbound farms
  - o It seemed like we saw the 'tourist/media' farm rather than the commercial production
  - o If you can get into the commercial operation, I am sure it would be fascinating
- Deardoff Farms
  - o Scott Deardoff did a great job of the tour, I just didn't learn anything from them

#### *Suggestions for future tours*

- Spend more time in Salina's, I found this to be by far the most impressive farming area
- Visit a leading glasshouse grower

#### *Feedback on Tour organisation*

- We received extremely late notice that we were accepted for the tour. I think we needed at least 2 months notice.
  - The information I received from Quadrant regarding flights and tour information was very late
  - During our visits throughout California, it seemed that a lot of the businesses had not had our visit date/time confirmed. Luckily Helena and Kathy did an exceptional job so the tour ran smoothly.
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## **Steve Skopilianos**



*Photo: Steve getting a bargain on CDs*

### ***California Polytechnic State University – Irrigation Training and Resource Centre***

- IRTC funded by industry and by projects carried out for industry
- Dr Styles states the largest problem currently faced by horticulturalists in the USA, is the lack of irrigation delivery uniformity, i.e. sprinkler nozzles and sprinkler spacing. “The growers simply don’t

understand the importance of keeping irrigation systems uniform.” Quoting the optimum sprinkler spacing to be 30 ft x 30 ft.

- He also believes the greatest issue to be facing horticulturalists in the USA over the next twenty years to be the lack of water. Although currently no issue exists. Water has been tightening due to increased production and poor irrigation management techniques.
- He also welcomes and hopes for a drought, believing the result will be far more beneficial long term for the USA. Forcing industry to improve irrigation techniques and adopt more water efficient practices.
- Stuart was impressed by the widespread use of drip tape irrigation by the Australian delegates and in general by Australian irrigators.
- Over the last couple of years, US vegetable growers have been adopting the use of drip tape irrigation. One of the main reasons was the uniformity of crop and increased yield.
- He recommended four irrigation publications produced by the university.
  - *Irrigation Evaluation Manual*
  - *Drip & Micro Irrigation Design & Management*
  - *Surface Irrigation Manual*
  - *Fertigation*
- All available to be downloaded from Cal Poly IRTC website.

### ***Speedling Incorporated – Seed Company***

- Growers of vegetable seedlings including broccoli, peppers, celery, tomatoes, lettuce, cauliflower and poinsettias.
- Seedlings produced from two sites; California and Florida
- Seedling trays irrigated by sub irrigation, where polystyrene trays are floated in concrete channels. The same system is also used to convey the seedling trays.
- Irrigation water is harvested from shed roof and is stored in three concrete tanks, holding approximately 25 ml. All water is recycled and re used multiple times.
- The seedling / tray line used is no other than the Australian designed and built Williams system.
- Cost of seedling in US dollars; Celery \$22.00 per thousand and Broccoli at \$6.00 per thousand. The seed cost is not included as growers supply own seed.

### ***Also at Speedling - Dr Wyatt Brown – Associate Dept Head Cal Poly Horticulture & Crop Sciences***

- Currently the National USA Vegetable farmgate Value stands at US\$11 Billion (USA National Agricultural Statistics, 2005)
- California boasts the lions share of vegetable production; US\$6 Billion farmgate value.
- California vegetable production currently at 565,000 acres with another 100,000 coming on.

## **Grant Sweet**

Recently a group of 9 farmers travelled to the United States. We landed at Los Angeles and from there we travelled north to San Francisco stopping over at different locations looking at various farms, packing sheds, nurseries and retail outlets. I was overwhelmed by the scale of these farms they are just huge.

### ***California Visits***



We went to Tanimura & Antle's farms where they farmed around 30 thousand acres of vegetables including celery, cos lettuce, broccoli, artichokes etc. T&A farms are probably one of the biggest players in the horticulture industry in the U.S. They also export to Japan & Indonesia to name just a few.

What I did notice while I was in the States is that their sustainability practices such as water consumption & Integrated Pest Management (IPM) were not that great compared to our practice on our own farm. For example they use roughly 3-3.5 megalitres of water per hectare on baby leaf lettuce using trickle on reasonably good soil. That in my mind is a waste as using overhead irrigation we use roughly 4 megalitres on wombok, which is in the ground for 2 weeks longer. Their labour costs and input costs are also lower than ours in Australia.

I would have liked to have seen more of the mechanical harvesting side of things and a few more nurseries. So my take home message is that in order for the agriculture industry to survive in Australia and to compete in this era with a looming recession, the ongoing drought, input costs, climate change, etc. we need to cut costs whether that is in labour, input costs, etc.

### ***PMA Summit***

Following our tour on the west coast we then flew over to Orlando Florida where we attended the PMA Conference. I found the conference quite interesting with different lectures held every day. I found one lecture very interesting which was about what the consumer wants. I found out that in the wake of the credit crisis people are tending to stay home and cooking their own meals rather than eating out. So while restaurants are suffering in this crisis the retail stores are reporting an increase of 20% to 40% in consumption of fruit and vegetables. Also a 10% - 20% increase in sales of organic produce. So while people are tightening their budgets they still have to eat. It is always cheaper cooking your own meal than paying \$80 for two at a restaurant isn't it?

I thought the tour was very worthwhile and recommend others do the same tour in the future. Although it could have been organised a bit better than doing so much travelling. Kathy the tour guide and Helena did a great job and a good time was had by all.

## **Dave Herbert**

Since I was young I have been involved in all manner of enterprises that we have conducted on our family owned farm. While we run both sheep and cattle on the property, from an early age I seemed to have a fascination with the smell of burning diesel. As we have irrigation on our farm and have tried most summer crops it was inevitable we would eventually try summer vegies, mainly melons and pumpkins, first with a share farmer and later on our own.

Over the years we have progressed from growing o/p varieties by spray and flood irrigation to growing hybrid varieties on mulch using drip. As the profitability with melons, pumpkins and other heavy vegetables has declined significantly for smaller operations due to over production by larger growers, and profit taking and lack of competition in the retail sector, I thought that to see the world's largest produce industry first hand may provide clues as to future trends for our industry and possible areas worthy of personal consideration.

Standing at the gate at Sydney airport on what turned out to be short notice, watching a plummeting Aussie dollar (96c at sign up, 61c worst on trip!) and facing a flight which I knew to be a trial, I was definitely wondering whether I had made a sane decision! The flight didn't disappoint, jammed into an old Qantas jumbo like sardines for what seemed like 3 laps of the globe, we sure were glad to see L.A. Anyone that has travelled to the U.S. knows that the security that awaits is anything but welcoming and two slip-ups later I was meeting our fellow travellers.

Our group turned out to represent an impressive variety of areas throughout our industry from root to leafy vegies and organics to glasshouse. After the usual drive and touristy stops around L.A., late in the day we saw our first view of open farmland, thousands of acres of plastic for strawberries.

### ***Deardorff Family Farms***

A nice meal and a good night's sleep saw us meeting Scott Deardorff, 4<sup>th</sup> generation vegetable farmer at his Oxnard tomato packing house. Not knowing what to expect, we were surprised to see an old plant made mainly of wood with a newer bin emptying system and older colour sorter grafted into a grader that sized with punch-hole belts. Plentiful Hispanic labour was in evidence, with packers paid US\$8 an hour or 11c per layer (either 2 or 3 layers per 25 lb box) plus benefits.

I noticed here the first example of U.S. food safety with each packer having their own barcode tags to stick to the box making it possible to quickly trace individual units right through the system. Traceability is the "buzz word" in the U.S. at the moment with food safety dominating all manner of changes in the retail sector, including handling, and especially individual unit packaging. The American consumer wants a guarantee of cleanliness and sterility backed up by sealed packaging.

It wasn't till we reached Scott's fields however that the blend of old and new became very evident. Hispanic workers, who seemed like ants in all the fields we drove past, picked (threw!) Beefsteak type tomatoes into three 25 lb boxes then emptied these into ¼ tonne plastic crates at the end of each row. As they emptied these a foreman checked each box and scanned each workers tag. Pickers are paid 70c per box. Both Scott, and Garry Tanimura later, said the quality of the produce leaving the paddock depended on the strength of the foreman and the relationship he has with his workers.

### ***Associates Insectary***

After a supersized taco meal we entered the 1950's world of beneficial bug breeding, set up by growers early in the 1900's to combat mealy bug in citrus. Bill Grant of Associates Insectary

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showed us through a process largely unchanged for close to 100 years and possibly one of the earliest examples of IPM using beneficial bugs, such as Australian ladybugs, combined with chemical application when necessary. Bill showed around a complex built from the 1920's onwards, with spray equipment to match! The insectary is currently working with the avocado industry to combat the newly introduced Persia mite which is threatening to wipe out this 300 million dollar industry.

Incidentally in California you need to apply for a permit for each and every chemical application. This is strictly enforced, taking 1 to 4 days to be issued requiring good management to avoid any complications from this time lag.

### ***California Polytechnic State University – Irrigation Training and Resource Centre***

Travelling north through dry, mainly treeless country we arrived late in the day to San Luis Obispo. San Luis is a university town and Cal Poly, with 16,000 students, is part of the California State University system. After a slow start from testing a few local brews the night before we met with Dr Stuart Styles for an overview of Cal Poly's Irrigation training and resource centre (IRTC) where he showed us projects ranging from simple gates giving constant water flows, up to state wide irrigation systems being developed within Cal Poly for the U.S. and overseas clients. IRTC is also responsible for hands on training of all aspects of irrigation to all sectors of the industry.

### ***Costco Supermarket***

After lunch we departed to look at a Costco supermarket and were staggered at the sheer size and range provided in-store. All fruit and vegetables were prepacked and most seemed to be prepared as ready to serve, such as fruit platters, vegetable platters, bag salads etc or in bulk trays. Costco itself makes most of its profits by selling membership to people wishing to shop in-store and this allows reduced commissions (app 10%) giving higher returns to growers. Speaking later to Gary Tanimura he noted Costco as probably their best client.

### ***Speedling Incorporated – Seed Company***

The afternoon was spent touring a seedling grower who uses foam trays in a system of bays that allow watering from below and also allow trays to be floated for easy placement and removal for shipping. The main plant for this grower is tomato but they also supply peppers, broccoli and potted flowers in quiet periods for large retailers. The nursery, which has a capacity of nearly 15 million seedlings at any one time, is set up to recycle all irrigation water as well as harvesting and storing all rainwater for future use.

We also met with Dr Wyatt Brown from Cal Poly, an expert in the area of growing, packing and handling pre-cut fruit and vegetables. On our trip north to Salinas we visited a winery to check out local growing methods but as all vineyard staff had left for the day sampling the local drop was left as our only option!

After a deceptively long drive (mistaking miles for kilometres on signposts) we arrived in the dark at Salinas. Salinas is located in one of only a few unique valleys where incredibly deep and rich soils combine with the area's "conveyor belt weather" to create ideal growing conditions for leafy cole and brassica crops as well as strawberries.

### ***Tanimura & Antle***

On a cool breezy morning we were fortunate to spend the morning with Gary Tanimura, of Tanimura and Antle (T&A). The Tanimuras have farmed in the U.S. since before depression and moved to the Salinas area after the Second World War. Mr Tanimura grew lettuce and a unique relationship developed with Mr Antle, who offered Mr Tanimura more money than market rates to grow a consistently good quality product (something today's buyers and retailers could learn

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from!). About this time Mr Antle was developing methods of cold store transport to ship this very valuable commodity to the more populated areas on the east coast. To this day T&A are still leaders and innovators in production, harvest and post harvest packaging and handling.

We met Gary at T&A's main office where all their farming, marketing and legal staff are based. After a run down on T&A, Gary boarded the bus with us for a tour of his farm. Our first stop was in a crop of fancy lettuce where two varieties of different colours were planted side by side. When harvested the two types were processed infield and wrapped together in a single plastic wrap. We then drove to the broccoli line where the foreman greeted us with a hair net as T&A have stringent infield food safety policies. Although this year prices are down and this crop is being harvested at a loss, broccoli is used as a break crop in farm rotations and thus continues to be grown. This harvest aid alone had a crew of approximately 40 people who are paid piece rates not individually but across the whole crew thus making sure that everyone pulled their weight!

Celery has a window between Halloween and Christmas peaking at thanksgiving. As we saw at Costco and another supermarket in the States there are quite a lot of pre-packed platters for entertaining, some using celery and our next stop was to a celery harvesting crew, again individually packing in the crop.



*Photo: Dave and Joe experience food safety in the field*

As we moved from crop to crop Mr Tanimura constantly made himself available on an individual basis to answer any questions we had, and his knowledge of his operation, considering its vast scale was truly impressive. T&A farm over 40,000 acres of intensive horticultural cropping including field and glasshouse production, in several states in the U.S. and also in Mexico. Considering that prime land in California can fetch \$80,000 per acre and even yearly rental of land exceeds \$2,000, an idea of the scale of this operation, and its production and overall net value is staggering.

After a feed of incredibly flavoured strawberries, in one of Driscoll's patches (again all packed into punnets then trays infield), and a look at Gary's Romaine (Cos lettuce) line we headed for Earthbound Farms "research" centre based in the Carmel valley. As it turned out we visited Earthbound's farm stand.

### ***Earthbound Farms***

The Carmel area is a very touristy area and also home to some quite wealthy people based out of L.A. and San Francisco. Earthbound leases its 30 acre farm block from one of its most famous residents and ex Mayor Clint Eastwood. Earthbound farms was started when in 1984 Drew and Myra Goodman planted 2 ½ acres of organic Raspberries in a backyard garden. Mark Marino led us through the farm which taps into this lucrative "feel good" market supplying a good range of fresh and preserved produce at this local stall. Not to be deceived by the scale of this farm though, and its modest farming methods, through a co-operative of 150 growers and 1/3 owned by T&A, the operation farms 40,000 acres of organic production making them the largest organic operation in the world.

This bought to an end our farm visit side of the trip and after a brief tour of San Francisco including the obligatory photo stop at the Golden Gate Bridge (not the grey Bay Bridge fellows!) and a seafood meal at Fisherman's Wharf we were ready to tackle the rigours of the U.S. security system on our split leg flight from San Francisco to Orlando, Florida through Dallas Fort Worth, Texas. Flying internally in the U.S. is an interesting experience where some of our planes were

ancient Mc Donald Douglass planes well in excess of 30 years old. Couple this with a flight being changed to another terminal at Dallas, involving a sprint, a train ride and some half eaten meals left on the table, combined with one leg of the flight to Florida bucking like an un-broken bronco ( the seatbelt signs were never turned off!) I for one was happy to feel the ground in Orlando.

Before we left Australia we knew we were attending one of the world's largest horticultural conferences in the Produce Marketing Association (PMA) Fresh gathering. I think as a group we were genuinely surprised at the scale of this whole operation. From the enormous venue, to the calibre of guest speakers, seemingly no expense was spared to host the conference.

### ***PMA Summit***

Our first function was the opening of the conference where some of the major sponsors had their "time in the sun" before Bryan Silbermann, President of PMA gave an enlivening opening address detailing the current "state of play" of the American produce industry and a good indication of future directions of policies the PMA intends to adopt, or has already adopted, in regards to areas such as traceability and food safety. The PMA is also leading the way in encouraging young people into the industry with the Pathways Scholarship program. One of the emerging trends Bryan detailed to the thousands at the opening luncheon was a growing trend towards "Locally Grown" produce and the fact consumers are becoming increasingly aware of "food miles". The PMA's research indicates this sector of the market could be as high as 10% (compared with organics at 3%) meaning massive ramifications for the industry and potential emerging markets for local growers where they didn't exist before.

Throughout the four days of the conference there were workshops held on quite a diverse range of topics from the areas of packing, marketing, handling, financing traceability, etc. I attended a seminar titled "The Global Economy and the Produce Industry: A Micro View", where Deborah Perkins, a young Australian working in the U.S. for Rabobank, attempted to gaze into her crystal ball, clouded by the fact that from the time she researched her report to when she presented it the U.S. dollar had skyrocketed against most other currencies. One interesting fact I did note was the Australian dollar was by far the most effected of all the major currencies mentioned on the day.

Another workshop I attended, "Packaging with Impact" dealt with the area of effective packaging in the produce and floral industries. A panel of industry leaders in this area such as Leonard Batti, an acknowledged veteran and "guru" in the packing industry, and a young lady, Shannon Boase, who has founded her own environmentally friendly packaging company showed off winners of PMA's Impact Award, recognising excellence in packaging development. Time was also spent on the subject of "compostable" plastics, and how they are only compostable industrially, not by the ordinary backyard methods.

On the second morning we also attended a breakfast where Jack Welch, ex C.E.O. of General Electric (who took G.E. from a 4 to a 400 billion dollar company) gave a very frank interview detailing some of his thoughts on today's economic outlook. Jack is very upbeat about the long term viability of the world economy though we can expect quite a few quarters of pain (possibly 7 or 8). He also believes that there are un-paralleled opportunities for smart business leaders, with him saying "buy 'em or bury 'em" when it comes to your competition in these troubled times.

When we were finally let into the exhibition hall the true scale of this event was evident. Nearly 15 acres of exhibitors, possibly 600 in all, filled the hall, with all manner of products and produce from growers and seed companies to exporters from the U.S. and abroad - the hall was full of colour and sound. As a grower, the exhibition was probably not aimed at me as such, but I still had no trouble filling in a couple of days looking at the varied exhibits. It was evident when

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you talked to most of the stall holders you were talking to owners and CEO's rather than just staff, reinforcing the relevance of the event and its importance to the industry. This made for a rewarding time as the knowledge of these people was extensive and I was able to learn a lot through just normal conversations. There were also many ways of packing and presenting produce on display and many countries were represented throughout the hall.

Our last morning in the U.S. was spent touring Cape Canaveral. Like most things in the U.S. everything was larger than life. While we were there the space shuttle was in its last days of pre-launch preparation and even from a distance it did look impressive. After visiting the museum housing the world's largest rocket, the Saturn V, we headed for the airport and our day plus flight home. After fond farewells at L.A. we headed our own ways home, and after 10 flat out days in an amazing country I really was wondering whether we were heading home to the best country on earth.

To summarise my report I can honestly say the time spent in the U.S. was amazing, everyone we met went out of their way to befriend us, help us and to make our stay a most memorable occasion. While not everything went to plan and some of the pre tour left something to be desired, our Tour manager Kathy Coatney's organising skills and need to improvise in some surprise situations made for a more unforgettable experience.

Last but not least I would like to say to my touring friends who really did turn this trip into a once in a lifetime experience where I can honestly say that not one word of hostility was said on a tour that was probably on a schedule that was at least 3 days shorter than it should have been, and to Helena our "squadron leader" who helped us when we needed it (and shut her eyes when we didn't!) many heart felt thanks.

Probably the one thing that truly did amaze me though was the fact that in all of the AusVeg community only 12 people took advantage of this incredible opportunity. I urge all levy payers to support this organisation, take advantage of programs provided and I thank them for giving me the chance to experience what I have.

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## Appendix 1. Itinerary

### *AUSVEG California & PMA Fresh Summit Study Tour*

#### **Day 1 Depart Australia - Sunday 19<sup>th</sup> October 2008**

Depart Sydney/Brisbane or Melbourne on your Qantas flight to Los Angeles arriving early morning same day. You will collect your luggage and clear customs before moving into the arrivals hall where you will be met by your guide, Kathy Coatney.

Your coach will bring you on a driving tour of LA, including Hollywood, the beach, and other spots that you may very well have seen in the movies or on television. Don't forget to watch for familiar faces from the entertainment industry!

After a day in LA, you'll head north through the San Fernando Valley to Ventura County, a rich vegetable-and-fruit-producing area that fronts the Pacific.



Map- California

#### **Day 2 Ventura to San Luis Obispo - Monday 20<sup>th</sup> October 2008**

The day will start at **Deardorff Farms**, a large family vegetable operation with one eye on its heritage as a fourth-generation family farm dating back to 1937 and the other eye on the future, in which sustainable and organic markets will play a growing role. The Deardorff Farms team segments its markets across several labels, spanning markets from conventional to organic.

The Deardorff family is committed to soil-building, integrated pest management, conservation of adjacent habitat, runoff management, and a good work environment for their crews. The farm is also an innovator in ecologically minded packaging and energy-efficient cooling. You'll meet Scott Deardorff, one of the owners, as well as David Cook, the operation's Food Safety Manager.

After lunch, you'll head to **Associates Insectary**, where you'll meet with Production Manager Bill Grant and his team of insect-rearing technicians. This grower-owner co-op is celebrating 80 years at the vanguard of integrated pest management (IPM), serving 8,500 acres of area citrus

and avocado orchards with orchard monitoring, pesticide applications, and releases of a variety of predators and parasites that they rear at their facility in Santa Paula.

Leaving Santa Paula, you'll return to the famous Pacific Coast Highway and head north along the beach to San Luis Obispo, home of California Polytechnic State University.

### *Day 3 San Luis Obispo to Salinas - Tuesday 21<sup>st</sup> October 2008*

Today will focus on horticulture-related innovations from the California Polytechnic State University, one of the premier agriculture facilities in the extensive University of California system.

The day starts with a visit to Cal Poly's **Irrigation Training and Resource Centre (IRTC)**, a centre of excellence devoted to irrigation research and training at all levels, from district- and system-wide issues to the application of better irrigation practices on individual farms. Studies range from the study of evaporation from irrigated farmland to fluid mechanics in pipe systems to managing elaborate, computerized SCADA systems. IRTC is also one at the fore of U.S. studies on salinity in agricultural soils (a subject that's all-too-familiar Down Under!).

Dr. Stuart Styles, director of the centre, will be your host. Dr. Styles will describe the IRTC's mission and explore its array of projects and programs. He will also surely be eager to compare notes on U.S. and Australian irrigation practices.

Lunch on or around campus will precede a visit with Dr. Wyatt Brown, associate department head of the Cal Poly Horticulture and Crop Sciences Department. Dr. Brown teaches vegetable production and post-harvest physiology. He has conducted extensive research on the production, packaging and modified-atmosphere handling of pre-cut fruits and vegetables, from artichokes to broccoli to strawberries. Dr. Brown has also published his work on the use of biodegradable films for packaging pre-cut vegetables.

From Cal Poly's campus, you'll head north to explore one of the California Coast's other famous crops – wine grapes. The **Robert Hall Winery** is a renowned producer of Rhone-style wines, and a pioneer in the Central Coast Vineyard Team's Sustainability in Practice program. The winery also boasts 1,765 square metres of constructed caverns – a massive poured-concrete underground aging room. Enjoy a tour of the facilities and a tasting with winery staff, then head up the coast to Salinas, the home of novelist John Steinbeck as well as thousands of acres of prime vegetable farms.

### *Day 4 Salinas to San Francisco - Wednesday 22<sup>nd</sup> October 2008*

Welcome to Salinas! The area's "conveyor belt weather" delivers fog and cool ocean air to the valley, creating ideal condition for leafy and cole crops as well as strawberries.

Today you'll visit two of the Salinas area's preeminent vegetable operations. Your first stop is **Tanimura & Antle**, a lettuce powerhouse that is harvesting and packing lettuce every day of the year somewhere along the West Coast. There you'll meet with **Gary Tanimura**, head of the Salinas farming operation.

The Tanimura & Antle story is a true-life California parable, the story of two families facing both adversity and good fortune in Salinas. The Tanimuras arrived in the U.S. from Japan, farmed, suffered the indignity of interment during World War II (while two sons served in the U.S. Army), and returned to farming to build a highly successful lettuce operation. The Antles escaped the Dust Bowl of Oklahoma and worked the lettuce fields along with legions of

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“Oakies” during the tough Depression years that Salinas-born John Steinbeck memorialized in *The Grapes of Wrath*. Eventually they bought their own stake in Salinas and built a lettuce operation of their own, working side-by-side with their neighbours, the Tanimuras, for a generation. The two families joined forces in 1982 and have become renowned for their innovations in production, harvest, handling and packing.

From the T&A headquarters, you’ll head down to Carmel Valley to meet **Mark Marino**, farm manager for **Earthbound Farm’s** operation there. Carmel Valley is home to Earthbound Farm’s farm stand and its 30-acre R&D farm, as well as a major part of the operation’s 40,000 acres of organic production. Mark is in charge of R&D as well as commercial production, and even answers consumer questions about farming on Earthbound Farm’s web site.

Earthbound Farm – one-third of which is owned by Tanimura & Antle – started as a backyard garden. Today, it produces an array of organic vegetables on 40,000 acres with the help of approximately 150 farmers and serves as a national standard-bearer of organic farming. Earthbound Farm is dedicated to being “a catalyst for positive change,” a mission that is evident in every detail, from organic protocols to converting its equipment to burn biodiesel.

After lunch, you’ll head north through the famed Silicon Valley (once known as the Santa Clara Valley, home of apricots and other stone fruits – now better known for Apples of the computer variety) to **San Francisco**, California’s beautiful City by the Bay. Generations of San Franciscans have revelled in the city’s charm and beauty, from the Victorian merchants who supplied the gold miners headed to the Sierras or the Yukon to the hippies who made Haight Asbury the centrepiece of the Summer of Love. Tour the city by coach, then explore, shop, stretch your legs, and enjoy a group dinner at Scoma’s in the famous Fisherman’s Wharf neighbourhood.

### *Day 5 San Francisco to Orlando - Thursday 23<sup>rd</sup> October 2008*

Depart San Francisco arrive Orlando, Florida.



Map- Florida

### *Day 6 - 9 Orlando - Friday 24<sup>th</sup> October 2008*

PMA Fresh Summit 2008, workshops and

functions

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***Day 10 Orlando to Cape Canaveral to Australia - Tuesday 28<sup>th</sup> October 2008***

Visit the famous **NASA Kennedy Space Centre** at Cape Canaveral and tour the facilities. See the shuttle launch pad, and share the thrill and wonder of space exploration with visitors from around the world. At Kennedy Space Centre, you get the unique chance to tour – up close – NASA’s launch and landing facilities. Experience interactive simulators, live shows and jaw-dropping encounters with massive rockets, as well as have the opportunity to meet a real member of NASA’s Astronaut Corps

Your coach will deliver you back to Orlando airport for your late afternoon flight to West Coast USA for the late evening flight back to Australia.

Depart Orlando onboard **American Airlines** flight **AA 1591** for Dallas to connect thru to Los Angeles.

***Day 11 In Transit - Wednesday 29<sup>th</sup> October 2008******Day 12 Arrive Australia***

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