

VG15703: 2018 Young Grower Industry Leadership and Development Mission – New Zealand and California

Facilitators

Project VG15703 was facilitated by AUSVEG. The tour was led by Shaun Lindhe from AUSVEG.

Major findings

Project VG15703 funded a two-week study tour for 11 emerging young leaders in the Australian vegetable industry to visit major vegetable growing regions on New Zealand's North Island and California to learn about the latest innovations and farm practices.

"The tour featured a diverse range of growers from across Australia and gave them the opportunity to visit leading vegetable growers, researchers, agribusinesses and supermarkets in New Zealand's North Island and California," Tour Leader Shaun Lindhe said.

"The tour itinerary was designed with a strong focus on exposing participants to the latest innovations taking place in the global industry and extending their networks with some of the region's leading vegetable producers."

It became clear that the scale of vegetable production in New Zealand and Australia was different than in the United States, which far outweighed both countries.

"This gave participants a greater appreciation of how their American peers manage production on a larger scale, including the advantages of a steady and relatively cheap source of labour, and the technologies and innovations that have been implemented to achieve this feat," Shaun said.

The two-week tour also highlighted the important role that research, ag-tech and automation can play in a vegetable growing operation.

Both countries demonstrated innovative ag-tech, production practices and business operations; New Zealand producers demonstrated the importance of product traceability systems and world-class packing operations, while American ag-tech in automated weeding, seedling planting and in-field harvesting and packaging stood out as highlights for all tour participants.

"The group recognised that Australian vegetable growers should look to adopt as much automation into their

businesses as possible, as this will not only help to reduce high labour costs but will also ensure their operations remain as efficient as possible and reduce the possibility of human error and contaminants infiltrating crops," Shaun said.

"Many growers identified new technologies, such as the automated planting technology PlantTape, the Autoweeder, in-field harvesters and biological crop protection as promising solutions for implementation in the Australian vegetable industry."

During the tour, many growers came across innovative ways to value-add or create an off-farm income and noted the importance of diversifying to remain profitable as a business.

In addition, the visits to supermarkets and fresh food retail stores highlighted the creativity that some New Zealand and American growers have used to design packaging that is highly appealing to the consumer and meets a unique consumer need.

While the technicalities of horticulture may differ from country to country, many of the overarching challenges and issues – including labour, water access, sustainability, profitability and increasing vegetable consumption – remain the same.

"The participants relished the opportunity to discuss common issues with international growers and find out the strategies they have implemented to overcome these challenges, and how they could improve areas of their own farms," Shaun said.

Outcome

The tour inspired participants to review the strategic direction of their businesses and investigate improvements in their current vegetable growing operations, while simultaneously identifying new ideas and

technologies for implementation in Australia.

"As many participants only grow a select number of product lines, they had not been exposed to production practices for different vegetable and horticultural commodities prior to the tour," Shaun said.

"As a result, the tour allowed everyone to expand their knowledge on the different production practices and the challenges faced by other growers in the global horticulture sector."

Importantly, the tour also allowed participants to expand their local and international business networks and discuss mutual areas of interest.

"The group consisted of a diverse range of participants representing growers and processors across multiple Australian states, and they each held a different role within their respective businesses," Shaun said.

"As emerging leaders in their own businesses and the wider industry, the tour gave participants the opportunity to learn skills and knowledge to broaden their leadership capabilities."

Background

The Young Grower and Women's Industry Leadership and Development Missions were delivered by AUSVEG to provide the industry's leading women and young members with the opportunity to expand their industry knowledge and build their local and international networks.

Following their return to Australia, participants shared their new-found knowledge with friends and colleagues to disseminate the key insights discovered from the tour to the wider Australian vegetable growing community.

Acknowledgements

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Further information

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The final report for this project is available on InfoVeg. Readers can search 'VG15703' on the InfoVeg database: ausveg.com.au/infoveg/infoveg-database.

VG17004: Vegetable knowledge transfer at the 2018 International Spinach Conference

Facilitators

Project VG17004 was facilitated by East Gippsland Vegetable Innovation Days (EGVID) Directors Stuart Grigg and Andrew Bulmer.

Major findings

Project VG17004 funded a week-long tour of the Spanish spinach industry in February 2018. Australian delegates attended the International Spinach Conference in Murcia and developed direct connections with breeders and researchers through visits to local growing operations and seed trial sites.

“It was a fantastic way of networking with the 14 people who we took from Australia, while also learning from some of the world’s leading experts on spinach production and research,” Tour Director Stuart Grigg said.

Murcia’s longer daylight hours and drier, warmer conditions are well suited to winter vegetable production, with many British growers producing crops there for export to the United Kingdom and much of Europe. The Australian contingent visited three of these growers, discovering highly sophisticated production techniques that ensure year-round supply.

“The production system at Emmett Murcia Agricultura is nothing like we had ever seen before; they’re producing spinach on the flat rather than on raised beds, and can harvest a full bay without any wheel tracks thanks to a unique harvesting system running tracks every second bay,” Stuart explained.

“Emmett was open to sharing its experiences and its costs, and was highly receptive to us walking through the site and taking photos. It was absolutely fantastic.”

British producer G’s Espana has placed a strong focus on soil health, producing its own nutrient-rich composts from cow

manure and palm fronds to restore soils degraded by decades of heavy cropping.

“There are heavy regulations around nutrient use with some pretty stringent environmental protocols, and this was really good for the group to understand as the compost conversation is happening globally,” Stuart explained.

At leading salad grower Intercrop, floating covers protect around 25 per cent of the spinach crop from climactic extremes such as hail and heat. Yields have increased by 10 per cent and crops are maturing 2-4 days earlier as a result.

“Our group wondered how they could afford to net 10 hectares of spinach, but when you see it happening in the field with only a few workers and an automated roller, it’s efficient and makes good sense given the greater certainty around supply,” Stuart said.

Visits to four trial fields confirmed that downy mildew (*Peronospora effusa*) remains the key breeding focus. It was also one of the hottest topics at the International Spinach Conference – particularly the challenges of managing the rapidly-evolving pathogen in the organic sector, and the likelihood of a new race being denominated in the near future. Scientists are also heavily focused on breeding resistance to leaf spot pathogens as they become more of a management challenge.

“Presentations around inoculum levels on spinach seed and management of these pathogens in the crop gave some reassurance that these issues are being researched internationally with some solutions available, should it become an increasing production issue in Australia,” Stuart said.

“It’s going to be a real game changer for Australia if they can get some significant resistance coming through in their genetic pool.”

Recommendations

The ongoing concern with downy mildew has highlighted the need for a multifaceted management approach rather than relying on genetics alone, especially with resistance genes becoming more challenging to access.

Race and isolate testing is a priority research requirement of Australian producers in order to make informed varietal selections specific to Australian conditions. Part of this work could include Australia being represented in the International Working Group Peronospora in Spinach (IWGP) to facilitate greater international knowledge transfer.

Australian producers also require further identification of leaf spot pathogens, their distribution and subsequent management techniques.

Cost management and automation is another major priority for growers. Continued technological developments to detect/remove foreign bodies, and improve efficiency, will aid sector growth and lead to greater consumer satisfaction.

Background

Europe produces around 550,000 tonnes of baby spinach per annum and is a world-leader in research into new varieties; pest and disease risks; food safety programs; and production techniques.

In 2018, Spain hosted the largest contingent of spinach stakeholders at the International Spinach Conference. A small delegation of Australian growers, agronomists and researchers attended the conference and toured local growing operations and seed trial sites.

On the back of this tour, East Gippsland Vegetable Innovation Days (EGVID) successfully lobbied to host the 10th International Spinach Conference in East Gippsland in May, but the event was postponed due to COVID-19.

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Further information

Please contact Stuart Grigg on 0400 860 763 or email stuart@sgaghortconsulting.com.au. The final report for this project is available on InfoVeg. Readers can search ‘VG17004’ on the InfoVeg database: ausveg.com.au/infoveg/infoveg-database.



Bulk spinach harvest at Emmett Murcia Agricultura in Spain.