

Young Growers Study Tour- New Zealand

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Young Growers
Tour to New Zealand
July / August 2008

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Project Number: VG08111

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Media summary

The 2008 annual trip to New Zealand saw the biggest ever group of young Aussie growers visit the North Island for nine days thanks to the assistance of the National Vegetable Levy. Twelve growers ranging in age from 21 to 34 years from Qld, NSW, Vic, Tas, SA and WA met in Sydney before heading to the 'long white cloud' on July 25.

Led by SA Vegetable IDO, Melissa Fraser, the group was met by Keith Vallabh, Chairman of Horticulture New Zealand's Fresh Vegetable Product Group. Three days of grower and merchant visits around the Auckland region followed, exploring the challenges and opportunities of both field grown and protected cropping enterprises north of Auckland and throughout the Pukekohe region.

Returning to Auckland on Day 4, the keen young growers attended the Horticulture New Zealand conference from July 29-31 themed 'One Industry, One Dream'. Sustainable production in an uncertain future was a key theme throughout the conference and Carbon Footprints and NZ's Emissions Trading Scheme were items high on the agenda. Keynote speakers included NZ's Branding Guru, Brian Richards and Emeritus Professor David Hughes from the Imperial College, London. The pair challenged the audience of industry stakeholders to find ways to 'sell less for more' and to become purveyors of 'Food, Furnishings and Fashions' rather than producers of veggies, wool and wool.

On day 7 the group traveled to Palmerston North and ventured on to Ohakune. Here they visited a few of the declining number of growers in this region, which has now fallen to only twelve businesses. Brussels sprouts, potatoes, parsnips and carrots are still grown around Ohakune, but the cost of transport and fertiliser inputs and a dry spell in the summer had led to low yields, increased disease and tight margins on some of the crops produced this season.

Returning to Palmerston North on day 8, the group was hosted by William Young, visiting a wind farm and nursery. Returning to Sydney on August 2, the group was glad to see the sun again and grateful for the opportunity to visit New Zealand and to meet so many vegetable growers.

Feedback from one of the participants included "The trip highlighted the difference in the structure of the NZ vegetable industry in comparison to ours. They seem to be a lot more cohesive and work together to achieve good product and a sound market".

Thanks must go to HAL, AUSVEG, Quadrant Australia and Jonathan Eccles who made the trip possible and to all the people who allowed visits to their farms, providing insight and inspiration from their production systems.

Introduction

The Australian vegetable industry's strategic plan, VegVision 2020, has five foundation pillars that outline the priority areas for R&D in order to build and strengthen the industry into the future. Pillar five "Strengthen the enabling environment, industry capacity, motivation and commitment to meet the VegVision 2020" is concerned with leadership and change.

To support VegVision, the AVIDG commissioned a study in 2007 to investigate the training needs of Australian vegetable growers. The report established a consensus that vegetable growers require more leadership and business management skills and that these skills should be firmly tied to the profitability of the business. Identified people development needs include improving business management skills that are based upon:

- business evaluation and planning
- understanding costs of production and financial reports
- better communication
- developing negotiation and conflict resolution skills
- improving decision making and managing change
- creating marketing opportunities

The vegetable industry has therefore clearly identified "leadership and people development" as being a major priority area for investment in order to build capacity, ensure sustainable and profitable business practices are implemented and to create future leaders. Numerous strategies have been employed in recent years to meet these people development needs through various "Industry Development" projects.

It has been widely recognised that study tours are an important and effective industry development project, providing individual capacity building and the creation of new learning outcomes. Young Australian vegetable growers have been visiting New Zealand on study tours since 2001 with great success. With support from the National Vegetable Levy, over 50 young growers (18-35 years old) have taken the annual trip to expand their knowledge and build relationships within the Australian and New Zealand vegetable industries.

The purpose of the 2008 tour was to enable participants to develop new skills and knowledge that relate to the needs identified by the AVIDG commissioned study. In order to achieve this goal, twelve young growers from across Australia were taken to the North Island of New Zealand, visiting fourteen vegetable growing operations, one nursery and four merchants and attending the Horticulture New Zealand Annual Conference in Auckland.

The 2008 tour provided the opportunity for participants to form relationships, develop personal skills, identify alternative business management practices and compare production systems (including costs and profit) with their New Zealand counterparts. Field growers were also introduced to protected cropping principles and vice versa while attendance at the conference allowed the participants to explore the differences between the NZ and Australian vegetable industries.

Tour participants were assisted during the tour by Melissa Fraser, the South Australian Vegetable Industry Development Officer. Notes were collected at each site visit by a designated participant and every night the group came together to discuss and record the learning outcomes from the day.

The following report is a collation of the information that the participants collected on the tour. The report will be submitted to HAL and will be available on the AUSVEG website for public viewing. One member of the group will also prepare a video of the tour, capturing the highlights of the farm visits and conference. An article has been prepared for the Vegetables Australia publication, due for release in November to increase the awareness of the tour and highlight the tour outcomes.

Acknowledgments

The 2008 New Zealand tour, including farm visits, conference registration and accommodation, was arranged by Barbara Le Masle from Quadrant Australia with the assistance of Jonathan Eccles.

Chairman of Horticulture New Zealand's Fresh Vegetable Product Group, Keith Vallabh was our host around Auckland and Pukekohe and his time and efforts are much appreciated. Thanks also to William Young from Palmerston North for escorting us around this district.

Thanks must go to the many growers and business managers that showed us through their operations and enlightened us with their business skills and knowledge.

The tour was facilitated by HAL in partnership with AUSVEG and was funded by the National Vegetable Levy. The Australian Government provides matched funding for all HAL's R&D activities.

Tour participants

State	Name	Operation Type
QLD	Daniel Buckley	Hydroponic fancy lettuce
NSW	Nathan Clackson	Hydroponic leafy brassicas
	Trent Greentree	Field grown root vegetables
VIC	Jason Farnsworth	Melons / pumpkins
TAS	Trent Wells	Field grown root vegetables
	Chris McKenna	Field grown root vegetables
SA	Con Laftsis	Protected cropping - capsicums
	Steven Lioulios	Protected cropping
	Phoung Le	Protected cropping - cucumbers
	Bradley Skuse	Field grown celery
	Thong Le	Protected cropping - cucumbers, tomatoes
	Melissa Fraser	SA Vegetable IDO
WA	Michael Touma	Protected cropping - cucumbers



From Left: Michael Touma, Thong Le, Trent Greentree, Con Laftsis, Trent Wells, Steven Lioulios, Dan Buckley, Nathan Clackson, Phoung Le, Mel Fraser, Jason Farnsworth, Brad Skuse and Chris McKenna in the rain at the 'Big Carrot', Ohakune, NZ

Itinerary

Thursday 24 July	AM	All travel from home to Sydney
	PM	Briefing session at HAL followed by Dinner
Friday 25 July	AM	Travel from Sydney to Auckland
	PM	Dinner in Auckland with Keith Vallabh
Saturday 26 July	AM	Auckland Farm visits with Keith Vallabh
		Southern Paprika
		Francis Brothers
	PM	Tony Ivceovich
		John Pezaro
		Travel to Pukekohe
Sunday 27 July	AM	Pukekohe Farm visits with Keith Vallabh
		Bruce Nicholls
		Raymond Jivan
		Masters & Sons
	PM	Hira Bhana & Co Ltd
		A S Wilcox Ltd
		Neil Yearbury
Monday 28 July	AM	Merchant Visits around Pukekohe
		Fresh Direct Ltd
		Status Produce
		Turners & Growers Ltd
	PM	Return to Auckland for free afternoon
Tuesday 29 July		Horticulture New Zealand Annual Conference
Wednesday 30 July		Horticulture New Zealand Annual Conference
Thursday 31 July	AM	Travel to Palmerston North then to Ohakune
	PM	Visit vegetable growers around Ohakune
		Gary & Sue Deadman
		Ron & Peter Frew
		Bruce & Steph Rollinson
Friday 1 August	AM	Travel to Palmerston North
	AM	Morgan Laurenson
	PM	William Young to host around Manawatu Region
		Perssons Nursery
Saturday 2 August		Return to Sydney with connections to final destinations

Tour Report

The following report is a collation of the information collected on the tour during farm/merchant visits, the conference, and daily debriefing sessions and from the participants' evaluation of the tour.

Briefing session at HAL

The tour officially commenced with a briefing session at the HAL offices in Sydney on the afternoon of Thursday July 24. The tour participants came together for the first time, meeting with Lucy Keatinge, Jonathan Eccles and Karen Symes. After brief introductions from everyone, Jonathan ran through the tour itinerary and Lucy addressed the group about the roles of HAL and answered questions relating to the National Vegetable Levy.

The session was followed by dinner at Baia Restaurant on Cockle Bay Wharf, Darling Harbour. The following morning the group travelled from Sydney to Auckland.

Farm & related activity reports

The first of the farm visits kicked off early on Saturday 26 July, accompanied by Pukekohe vegetable grower Keith Vallabh and the worst storms to hit the North coast in over 20 years. Despite the torrential rain and gale force winds the group showed enthusiasm throughout the trip.

Visiting vegetable growers north of Auckland on Saturday, the tour progressed southward, visiting growers and merchants in the Pukekohe region on Sunday 27 and Monday 28 before attending the Horticulture New Zealand Conference. Thursday July 31 saw the group venture further south to Palmerston North and Ohakune, visiting growers and merchants/processors. Returning to Palmerston North on August 1, the group was hosted by William Young.

Southern Paprika - Stuart, Production Manager

Southern Paprika is a hydroponic green, yellow and red capsicum (bell pepper) growing operation north of Auckland. The company has expanded from 2.5 to 14 hectares of Dutch built glasshouses over three sites in nine years. With rain water collected on site, a reticulated hydroponic system is employed, treating the water with ozone to remove harmful minerals. The waste water is used on farm to produce hay and the coco peat growing medium is not recycled, being buried on farm.

Supplying the export market, the company is gravely concerned about the removal of phytosanitary certification for the export of Tomatoes and Capsicums due to the presence of the Potato Tomato Psyllid (PTP) and the spread of the *Liberibacter* bacterium. The company produces too many capsicums to supply the domestic market and will have to considerably reduce its plantings and production if the export bans are not lifted soon.

With planting costs exceeding \$1m per house and approximate heating costs of \$5000 per month, the risks involved with this business are substantial.

Retaining employees is another big challenge for the company, so an incentive system has been implemented to retain good staff. With base wages starting at \$12 per hour, a bonus system is offered for attendance and yield, with some staff earning up to \$20 per hour.

The company has recently started to grow its own seedlings, reducing the planting costs by approximately 50%. Fusarium is the biggest fungal issue that the operation is faced with, so climatic conditions are monitored closely and the lower leaves are removed to improve ventilation around the plant. One of the strengths of the company is its isolation from other intensive protected cropping enterprises. This reduces the risk and exposure to insects and diseases and their production system is currently free of PTP. An electric robotic sprayer is used when necessary, but fogging insecticides is often avoided.



Southern Paprika is accredited with NZ Gap which is aligned with Euro Gap and also has a HACCP QA system implemented. They pay a levy to Horticulture New Zealand of 45 cents for every \$100 of produce sold.

Francis Brothers - Bob Francis, business owner / manager

Francis Brothers is a 20 hectare broadacre farming enterprise that produces celery and parsley for the domestic market and fresh cut flowers for export. The region that they grow in was once occupied by over 150 hectares of market gardeners, but this number has dropped to only three growers due to the popularity of hobby farms and lifestyle blocks.

The NZ market for celery is relatively small with Francis Brothers annually producing 50, 000 cases of celery (an exclusive Shruers line from VIC) and parsley for bunching and processing. The celery market has predominately operated in high and low cycles in the past; however the market has flattened out in recent years. Combined with a significant increase in input and transport costs, the results are lower profits and a declining confidence in the industry. Due to these factors the export market is not a viable option for Francis Brothers.

Planting and harvesting are conducted by hand, making employees hard to find, creating a challenge for the business. Labour is generally sourced from the Solomon Islands, but the employees are often unreliable. Base wages start at \$13 per hour, with higher wages offered to reliable employees.

Bob explained that one significant reduction in cost was that of converting from waxed cardboard cartons to the use of reusable plastic crates. He also explained that value adding his product by processing into packets of cleaned shortened sticks may be a good opportunity in the future to command a better return for his product.

Tony Ivcevich - Greenhouse Tomato grower and Chair of the Horticulture New Zealand Tomato Product Group

Tony Ivcevich is a tomato grower north of Auckland and is also a Director on the Board of Horticulture New Zealand. Due to access issues at his own property, Tony led us through the greenhouses of an accompanying property.

Here we saw tomatoes grown in a deep-flow rainwater fed hydroponic system, with oxygen pumped into the reticulated water to reduce disease outbreaks. The water in the gutters is allowed to be absorbed by the plants at the end of the season so that there is no waste water.

The tomatoes seen at this enterprise were not in the best condition. The plants appeared to be suffering from poor nutrient management and chemical burning, evident by the highly vegetative state of the plants; however production is still estimated at being 41 kg/m². The cost of production in these systems equates to \$4/kg while the current market price was only \$2/kg, the worst price seen in 10 years.

To overcome some of the issues with price, the produce is graded into premium and second grades, in order to command a higher price for the better quality fruit.

Pezaro Herbs - John Pezaro, business owner/ manager

"FRESH HERBS - FROM THE PEZARO FAMILY FARM", is the catchy label featured on the innovative packaging John Pezaro uses to value add his extensive line of fresh herbs, grown on the family farm for over 30 years. Initially growing in the open field for the niche restaurant market, business has skyrocketed and a range of 25 different products are now grown on ~5 ha, including in poly tunnels and these are pre packaged for domestic and export retail markets.

No chemicals are legally registered for use on herbs in New Zealand, so the produce has limited chemicals applied. However, the very wet and humid climatic conditions make organic growing difficult to implement. The crops

grown are mostly perennial and this allows diseased plants to be cut off, with fresh new unaffected growth reappearing and ready for harvest within 8 weeks.

Producing 1500 units of herbs daily, the enterprise employs 16 full time staff to conduct field operations in the morning and packaging and transport in the afternoons. The new packaging and an improved refrigeration system has enabled the team to no longer work weekends as the shelflife is dramatically extended from 3 - 18 days, depending on the herb.



Exporting to Korea, Hong Kong, China and Taiwan and supplying local supermarket chains Countdown and Food Town, the Pezaro family have built a strong brand and a good product. The biggest challenge to this operation is the lack of succession planning, with no one to take the business into the future.

Jim & Bruce Nicolls - Hydroponic Lettuce and Watercress

After 20 years of growing fancy lettuce and watercress the Nicolls family have progressively converted to hydroponic growing systems due to the ease and speed of operations. With a mix of green and red fancy lettuce, the production system spans over 1.5 ha under plastic roofs, but the climate is not controlled.

Irrigating with bore water, the system is reticulated into a main tank. Every two weeks the tank water is used to irrigate pasture paddocks and fresh water is treated and pumped into the hydroponic system to decrease the incidence of disease and nutrient damage.

Seedlings are brought in trays of 144 and are transplanted into gutters, taking 4-5 weeks to fully mature in the summer and 12-16 weeks in the winter. Insect pressure is often high and each year brings new problem pests, while brown spot poses a major challenge in the green frilly varieties.

The NZ Gap accredited business supplies the local retail market. The lettuce is generally sold in bags of mixed varieties which is harvested and bagged without sanitation. There is a significant proportion of competition emerging in the local market due to an influx of migrant growers. There has been a trend toward low selling prices from these new industry members, making it very

difficult to compete as their selling costs are often lower than production costs (approximately 70 cents a head).



Watercress is also produced here to supply the local 'boil up' market. It is germinated on old house carpet and the runners are transplanted into soil. Due to the limited supply of watercress, the price returned is high in comparison to lettuce, however the production is much lower.

Raymond Jivan - Eco Pak Salad Factory & Pack House

Ten years ago, Raymond Jivan and his business partner were producers of potatoes, onions, lettuce, cabbage and cauliflowers. Due to the weakening market, increased competition and falling profits, the pair looked for an alternative crop. After a simple farm trial with some seed imported from the UK, they decided to venture into leafy salad greens and a whole new enterprise emerged.

In recent years the plantings of potatoes and onions has dropped to nil, due to high input costs and increasing competition from the other 20 or so grower/exporters in NZ. The business did however realise an opportunity to become a packer and transporter of regionally produced food from smaller enterprises, making it easier for these businesses to sell into the competitive supermarket trade.

As the salad mix business took off, the pair moved into 'fresh cuts', preparing salad mixes and processed vegetable products for the domestic market. This soon progressed into a healthy export trade, with fresh salads, soup mixes, roast vegetables and processed salads for fast food chains being sent as far as Europe, Asia and the UK.

A strict internal QA system is implemented given the high processing nature of the business, and they are also NZ Gap accredited. The recent extension of the processing plant provided a good opportunity for business growth, and another extension is planned for later this year.

Challenges to the business include the increasing cost of transportation, getting over the current drought and beating the competition, so the company completes all sales and marketing themselves, providing the opportunity to better control the sales price.



The company has saved money by employing their own engineers to design the equipment needed to complete its processing operations. At a total initial set-up cost of \$7M, it appears that the business is carefully managed and the QA systems implemented and adhered to ensure the success and growth of this business.

Masters & Sons Ltd - Jayant Masters

As the Chairman of the Pukekohe Vegetable Growers Association and employee within a thriving family business, Jay Masters was one of the most inspirational and enthusiastic hosts that we met during the tour.

Masters & Sons have been vegetable growers in Pukukohe for over 60 years and have been retailing directly for over 30 years. The company currently grows potatoes for the local fresh market and also for the processed export market. Onions all grown all year round for export and lettuce is also grown in the winter time.

With clients such as Sainsbury's and Tesco's, exporting to France, Germany and the UK, the QA systems implemented and adhered to in this business are of an exceptionally high standard. The onion export market requires the highest QA standards to be employed, and these systems are then applied to the other commodities produced by Masters & Sons.

One of the biggest strengths of this business is the staffing structure. With two generations of the family employed in the business, only a few other key managers are required in addition to the casual staff, ensuring everyone is focused on the same goal and has the same interest for the company.

Jay explained that growers need to work collectively to raise the profile of their industry and to invest wisely to increase product quality and their presence in the market place, both domestically and internationally.

Key issues identified for the future of vegetable production in New Zealand and Australia include food quality and safety, the environmental impact of food production, water quality and availability and product traceability.

It was highlighted that Asia provides the next big export opportunity and that Australia and New Zealand should work together closely to formulate a sound structure to capitalise on the current food demand of developing nations.



Left: Jayant Masters,
Masters & Sons



Right: Keith Vallabh, Pukekohe

Consumer education and better promotion of the vegetable industry and the variety of commodities it produces would also ensure the future growth and sustainability of the NZ industry.

Hira Bhana & Co - Bharat Bhana

Bharat Bhana is a second generation vegetable grower, with a third generation waiting in the wings to manage the family business. Growing 200 hectares of potatoes, 100 hectares of brassicas for the domestic fresh market, and 150 hectares of onions for the European and UK export markets, Hira Bhana & Co are certainly a force to be reckoned with.

Forty hectares of carrots are also produced, although these are marketed and exported through an external company along with 20 hectares of pumpkins, grown annually for the fresh market.



Under the Hira Bhana label, the company grows, grades, packs and transports all of their own produce, enabling the value chain to be closely managed, increasing the monetary returns to the company.

Current threats to the viability of the business include the shortage of skilled labour. Over 40 people are employed within the company, with the management of different operations delegated amongst the staff. The current increase in input costs such as fertiliser and fuel has resulted in tighter margins, making it difficult to retain good staff due to the wages that they command.

A S Wilcox Ltd - Simon Wilcox

A S Wilcox Ltd is a grower/packer based enterprise formed in the 1930's. Initially a growing based company they have expanded into packaging, marketing, export and transport, enabling them to fully manage the value chain.

Geographic diversity is a strong point for this company, growing 535 hectares of potatoes, 400 hectares of onions and 60 hectares of carrots across three production areas in the North Island of New Zealand. With the capacity to process and pack 1,400 tonnes of produce a week, the Wilcox pack house is an impressive looking and well equipped operation. Primarily focused on the domestic fresh market, Wilcox distributes to Woolworths in Australia and throughout the North Island of New Zealand.

Emerging markets in Asia, China and India are seen to be the biggest future opportunities for the Wilcox operation, while increasing input costs and the labour shortage are the main threats to viability.

Neil Yearbury - Hydroponic Continental Cucumbers

With 40,000 m² of plastic greenhouses, Neil Yearbury and his wife can produce up to 10,000 continental cucumbers a week (in the summertime) in their hydroponic production system.



The cucumbers are grown in coco peat bags, with three plants in each bag. The bags are used to produce at least three crops before the material is recycled in the gardens on-site. Irrigated with rainwater, the waste water and green waste are collected and processed on farm in an anaerobic system to remove residual nutrients. The application of this nutrient rich solution reduces phosphorus inputs by 60-80% and nitrogen inputs by 50-60%, resulting in significant savings.

Neil explained how the viability of NZ vegetable businesses are being threatened by increasing input costs and lower returns from buyers, despite the fact the vegetable prices had increased in the supermarket. Pest and disease management also poses a big threat to the enterprise, along with the decline in daylight in the winter time. While the 12 year old plastic houses have been a good investment for Neil, they can be problematic in NZ's variable climate, as seen in the previous photos, where the roof was blown off during an electrical storm.

GM & SM Deadman - Snokist Carrots, Ohakune

Gary & Sue Deadman are carrot growers in Ohakune, growing on 60 hectares of leased and privately owned land. With a generally well managed one-in-three year rotation, the Deadman's were experiencing their worst yields ever, due to a 'drought' in the previous summer.

The Ohakune area generally has a high average annual rainfall spread sufficiently throughout the year (including the summer months) to not warrant artificially irrigating their crops. However, the previous summer had been unusually dry and their crops had suffered, both in yield and also quality. The moisture stressed crops became more susceptible to disease and a large proportion of the crop was affected by violet root rot.

The carrots are washed and graded on-site, generally being packed into 20kg crates, with the smaller and larger juicing carrots being packed into bags. The untreated wash water used is sourced from a nearby creek and the waste is allowed to evaporate/recharge from a settling pond.



Snokist Carrots is NZ Gap accredited and can supply both the North & South Islands, due to its good location. However, the cost of transport is starting to impinge on their market access, posing a significant risk to their business. Trading through Turners & Grower Ltd, they are receiving approximately \$18 per 20 kg crate, with a production cost of ~ \$15 per crate.

Challenges to their business include the lack of land available for lease to maintain good rotations. Input and transport costs are also starting to hurt, and the recent drought and frosts that followed resulted in a significant decline in yield. A recent decline in vegetable growing operations in the region also poses a challenge as Ohakune produce battles to maintain presence in the market place.

Ron Frew Family Partnership - Ron Frew

Growing 120 hectares of potatoes and 25 hectares of carrots annually, Ron Frew and his family operate a diverse and profitable business in Ohakune. With over 2,800 hectares of fertile volcanic loam soils, the Frew enterprise includes 28,000 breed ewes and 1000 head of cattle, providing the opportunity to rest soil and employ good rotation strategies to reduce disease build up.

Producing an average of 62 tonnes per hectare of dryland potatoes, the Frew's supply ~200,000 bags of washed potatoes to the local domestic market annually.



Employing eight full-time staff in the cropping operation and another eight in the pack shed, one of Ron's sons manages the vegetable production while his other son manages the livestock operation.

The delegation of management duties and a sound succession plan ensures this business has the ability to survive in what is an uncertain future for growers in this region. The Frew enterprise has been actively seeking to increase its land size and has purchased significant tracts of surrounding land in recent years.

Snow Country Gardens - Steph & Bruce Rollinson

Steph & Bruce Rollinson are growers of Brussels sprouts and parsnips in Ohakune. Expanding from only 8 hectares to over 40 ha in just eight years, 4-5 bins of Brussels sprouts and 5-6 tonnes of parsnips are now harvested daily.

The produce is harvested in the morning by the core staff of 12 people, and washing and packing is performed in the afternoons. Brussels sprouts are washed, trimmed, graded and packed into small bags and packed loose in crates. The parsnips are washed and bleached with Nylate and are then also packed into bags or loose in crates. Plastic crate covers, seen below, are used to seal the crates, allowing for easy identification in the market place. The 12 cent cost is easily recouped by the time saved in packing.



The recent drought that affected other growers in the region was overcome by the Rollinson's by installing overhead irrigation, sourcing water from the nearby river. The river water is also used for washing produce, the waste water being pumped to settling/seepage ponds onsite.

Snow Country Gardens market their produce locally through T&G, although exporting to Australia has been identified as a potential opportunity for the future. Rising input costs and the cost of transport are emerging as significant threats to the viability of this operation.

Perssons Nurseries Ltd - Tony, Production Manager

Perssons Nurseries Ltd on the outskirts of Palmerston North, is a seedling and potted plant enterprise producing some 10-12 million seedlings annually. Supplying the domestic market locally and in Wellington, Perssons also grow tomatoes, potted plants and flowers for the supermarket trade.

Supplying the vegetable industry primarily with brassicas, leeks, celery, silver beet and lettuce, the grower supplies their own seed and Perssons are commissioned to propagate a healthy seedling, at a cost of four cents per plant.

Seedlings are propagated into a mix of bark/compost and vermiculite and are fertilised with osmocote, a slow release granule. The seedlings germinate in a heated room and are then transplanted into larger trays and transferred into plastic greenhouses.

Persons see the increasing flower business as being their next big opportunity and are building new plastic houses to allow for the increase of production. Current challenges to the business include the declining number of nurseries, resulting in higher pressure being placed on their company for supply.



General observations from farm visits

- NZ GAP is a quality assurance programme that provides a traceable, accountable system from crop to customer for the production of fruit, vegetables, olives and flowers in New Zealand. It was grower initiated and driven and applies one QA system to all production enterprises. The tour participants were impressed with this system and felt that it was superior to the Australian system, which is largely driven by the individual supermarkets.
- Some of the enterprises visited were relying solely on an export market, creating big risk
- A range of different enterprise sizes were visited, and it appeared that the small family oriented businesses were just as competitive and profitable as the large businesses
- Strong businesses were created when many generations of the family are employed within the operation, succession planning is essential
- Dutch built glasshouses were reported as being of far superior quality than the locally produced ones
- Some of the hydroponic systems visited were primitive, and the plants were affected by root disease
- A few of the farms had poor hygiene practices, with old plant material and weed infestations impeding on their productivity by harbouring pests and diseases

- QA systems were compromised on a few farms by having cats and dogs in production areas and pack sheds
- Take the risk when young to get ahead
- Simple and easy production systems are not always a weakness
- Mechanisation is not always necessary, having staff grade produce can often result in a better quality product
- Water for irrigation and washing is often pumped straight from local creeks and rivers without any pre-treatment. Waste water is often allowed to re-enter river systems through seepage and irrigation applications. This practice could pose human health risks, and the runoff/recharge from the waste water may have environmental impacts.
- The increase in fertiliser, fuel for heating and transport costs is starting to affect the viability of the NZ vegetable industry
- Managing the value chain by growing, packing and distributing produce can provide many beneficial results
- The bigger family businesses visited all appointed production managers, delegating tasks on the farm, allowing the owners to become more productive
- NZ growers need to unite with one voice to ensure they are being paid accordingly for their product
- Implementing expensive production systems and technology won't always result in higher production; you still need to have a fundamental understanding of plant nutrient requirements
- The bigger farms had a sound understanding of their costs of production and explained how financial management was imperative to business success

Merchant Visits

During the New Zealand tour the group visited various merchants around Pukekohe and Palmerston North. The individual businesses will be reported on here, with general conclusions acquired from the tour participants included in the 'observations' section.

Fresh Direct Ltd - Steve Ross

Fresh Direct Ltd is a produce market in Pukekohe, expanding from a small business with 4 staff in 1994, to become a major competitor in the market place, currently employing over 300 staff. Initially specialising in leafy green vegetables, Fresh Direct has diversified its business and now supplies over 90% of the organic produce consumed in NZ. They also operate a successful flower bouquet and pot plant business, supplying supermarkets nationally.

Fresh Direct has a large network of suppliers throughout the country. The geographic diversification of growers enables Fresh Direct to market many lines year round and they try to maximise the availability of the more seasonal products. They hold the HACCP based NZ Fresh Produce Approved Supplier Programme in high regard and work closely with their growers to assist them in attaining this certification.

<http://www.freshdirect.co.nz/>

Status Produce Ltd - Murray Adams

Status Produce Limited is a major NZ producer of tomatoes and is a subsidiary of the Turners & Growers Group, operating 20 hectares of state-of-the-art glasshouse facilities over three sites, located just south of Auckland. As well as packing and marketing all of their own produce, they also pack product for independent growers. In addition to packing under the Status label they also offer a premium product range under the Beekist label which is available exclusively to Foodstuffs stores in the North Island.

Production across all sites had dropped recently, and QA requirements restricted us from accessing the glasshouses. Due to the downturn in supply, the pack house had cut back to only four days of operation, although the company still employs some 220 staff.

With bore water and rain water used for irrigation, the crops are grown hydroponically in both rock wool and coco peat bags. Managing the right nutrient solution is the key to obtaining maximum yields, so water samples are collected regularly and these are analysed locally. The glasshouses are gas heated and the company is investigating options for power co-generation to reduce operational costs.

Producing up to 12 million kilo's of tomatoes annually, Status Produce Ltd predominately supplies local supermarkets, although they do also export to Japan and Australia. The tomatoes are graded through the packhouse, with 60-70% packed loose, with the remainder packed as trusses, in punnets or bags. NZ Gap accredited, the company employs a full time QA officer who manages all compliance within the glasshouse and packhouse.

The impressive Compac sorting and packing equipment required large investment and the operation has the capacity to process much larger volumes than it is currently.

Status Produce consider a growth in pre-packing as being the biggest opportunity for expansion. The truss market is also popular and the company will pursue this market further in the future. While a 10% return on investment is sought, the current low market prices and the ban on exports are posing a real threat to the future viability of this business.

<http://www.statusproduce.co.nz/>

Turners & Growers Ltd - John Lindsay

Turners & Growers Ltd (T&G) is a nationwide wholesaler, packer and export business, with thirteen markets across the north and south islands of NZ. The company sells produce on consignment for local growers (collecting a 10% commission) and also import approximately 30% of its total volume of produce, with Bananas being the biggest import item.

T&G predominately supply and store for NZ owned independent supermarkets and green grocers, but also supply some of the larger supermarket chains. By importing from the southern hemisphere in the winter months, and from the northern hemisphere in the summer months, T&G can guarantee supply of a full range of fruit and vegetables all year round.



T&G Manager John Lindsay, pictured above with Mel Fraser, explained how T&G also has a strong export business, with apples, onions, kiwi fruit, squash, berries and citrus being sold to the USA, Europe, UK and Asia.

There are eight other independent produce markets surrounding T&G at Pukekohe, creating healthy competition as buyers can shop around to secure the best prices. The market floor is not refrigerated, so it is imperative that produce is traded early in the day (can reach up to 18 degrees in the summer time in the sheds) and to move green produce within 24 hours of delivery. Buyers will often arrive at 3am, with all selling underway by 4.30am.

T&G see the supermarkets push towards adopting its own QA systems (similar to the Australian model) as being a big threat to their industry. This can isolate growers from competing and can also lead to growers dealing directly with supermarkets, making markets like T&G redundant.

<http://www.turnersandgrowers.com/>

Morgan Laurenson - Stuart Robbie, Director & Bill Foster, Senior Manager
Morgan Laurenson is a New Zealand owned business specialising in the pre-packing of Potatoes, Carrots, Onions and other produce for the local retail and export markets, based in Palmerston North. They also specialise in Fresh, Processed Vegetables for the Catering and Food Service Industry. The company is also involved in merchandising horticultural supplies to growers.

The company was formed in 1949, named after its founder, Morgan Laurenson and primarily pre-packs potatoes, carrots, onions, Brussels sprouts, kiwifruit, citrus and other crops for supermarkets.

Morgan Laurenson Ltd also has a merchandise operation, servicing potato, onion, carrot, squash, cereal and pastoral farmers with seed, chemical, fertiliser and advice on best cultivars, crop nutrition and plant protection.



The company offers grower contracts for a range of crops, including potatoes, squash, carrots and onions. Contracts are available to local growers to meet a range of supply arrangements the company has with domestic and export buyers. Morgan Laurenson Ltd export potatoes and onions to South-East Asia & Europe and run a large squash program for export to Japan.

Potatoes were originally the foundation crop for the company; however they no longer grow their own crops. Sourcing their produce from contracted growers, their production base has recently fallen to only 12 growers, with the lucrative Dairying business now consuming much of the land previously used for vegetable production. However, in addition to the potatoes grown for fresh consumption, significant volumes are also produced in the region for Mc Cains, and crisping and french fry processors in NZ and overseas.

The company also specialises in seed potatoes, obtaining Plant Variety Right Licenses to four new potato cultivars in conjunction with a group of seed growers. These varieties are all bred in NZ by Crop and Food Research. White Delight, Dawn, Pacific and Moonlight all have different eating or cooking characteristics and are marketed by Morgan Laurenson Ltd throughout NZ.

Morgan Laurenson also diversified their business into the process vegetable market in the late 1990's. The main processing facilities are situated in a new purpose-built plant inside the main building, producing a range of ready to use, processed vegetables and salads for both the food service and retail markets.

Morgan Laurenson Ltd is aligned with the NZ GAP and Global Gap programs, with all fruit and vegetables packed by the company being embodied by a comprehensive QA system. Each product line is carefully inspected prior to acceptance into the pack-house by the QA manager.

Future opportunities for the company include the development of new potato cultivars specific to customer end use requirements, including table potato consumers and large processing companies. They will also pursue new export markets with pre-pack and bulk produce and added value lines of processed vegetable products including fresh cut vegetables for the domestic and export markets.

<http://www.morganlaurenson.co.nz/>

General observations from Merchant / Pack-house visits

- The packhouses generally had good equipment and streamlined systems
- QA was generally of a high standard, although the presence of a food vending machine raised questions among the group
- Most pack-houses managed to advertise their own brandnames on their produce sold in the supermarket, this is hard to achieve in Australia
- Despite the level of automation/mechanisation, the processing business' appeared to be labour intensive, and some of the produce was treated roughly by staff
- The processing operations in Pukekohe and Palmerston North were not aware of each other, despite the fact that they compete in the same market
- Some of the soft produce and most of the imported produce was not of very good quality, and would not have good shelflife
- Hard produce generally looked better quality
- As a grower, having a good relationship with your merchant is vital
- Having all of the merchants spread out rather than in one location (like Australian markets) can be a strength and a weakness
- Food safety standards at the processing plants was exceptional, even down to having protective covers on light globes to ensure no products are contaminated

Horticulture New Zealand 2008 Annual Conference

Day 1 - Annual 2008 Conference of

- Fresh Vegetable Product Group
- Process Vegetable Product Group
- Potato Product Group
- Fresh Tomato Product Group

On day one the group of young Australian growers dispersed into separate rooms, attending the conference of the product group that was most relevant to their production system.

Keith Vallabh(Chairman) opened the proceedings of the Fresh Vegetable Product Group Conference, explaining that if the NZ fresh vegetable industry is to thrive into the future then it is vital that:

- The industry cements a place as being reliable suppliers of healthy, fresh, safe, well grown produce for export
- The dollars returned to growers increases to account for the significant increase in fertiliser, fuel and transport costs. The industry needs to determine the real costs of production and convey this to merchants with one united voice
- The health and safety aspect of fresh food production is increased throughout the value chain
- Country of origin labelling is adopted and consumers are educated about the benefits of buying local
- The NZ vegetable industry continually promotes itself as being producers of healthy and safe products

The day proceeded with presentations from various speakers covering a wide range of topics. Horticulture NZ's Research & Innovation Manager, Sonia Whiteman, spoke about 'Future Vegetables: High value vegetables, produced sustainably, for world markets'. A range of new and improved vegetables were presented with desirable characteristics, such as increased sweetness or enhanced health attributes.

The hot topics of Climate Change and NZ's Emissions Trading Scheme (ETS) were next on the agenda, with presentations by Business New Zealand's Phil O'Reilly and Julia Hoare from PriceWaterhouse. The Kyoto Protocol commits New Zealand to reducing its greenhouse gas emissions back to 1990 levels, on average, over the period 2008 to 2012 or to take responsibility for any emissions above this level if it cannot meet this target. Mr O'Reilly explained that NZ's inability to meet this target and the impending price of carbon in the ETS is going to cost the NZ economy ~\$4.5 Billion dollars over the next five years.

Given that 48% of NZ's Greenhouse Gas emissions stem from Agriculture and Horticulture, it is certain that these industries will suffer significantly once the EMS and Kyoto schemes come into full swing explained Ms Hoare.

It is predicted that a carbon cost of \$25/tonne would result in the loss of 52,000 jobs, while industry shrink could claim as much as 32% in sheep farming and 28% in dairy farming, due to the high emissions of livestock.

John Hutchings from Fonterra held the floor after lunch, giving examples of how the dairy industry is working to overcome the limitations that may be imposed by an ETS. The panel of speakers that presented in the afternoon sessions challenged NZ vegetable industry stakeholders to find ways to calculate and reduce their carbon footprint. The issues of water and nitrogen management were also raised, as these issues will impinge on the future viability of sustainable growing systems.



Day one was rounded off with a night of dining and dancing at the Annual Conference Dinner.

Day 2 - 'One Industry, One Dream' Horticulture New Zealand 2008 Annual Conference

Day two's proceedings were opened by Andrew Fenton, the President of Horticulture New Zealand. Two keynote speakers followed; NZ's Branding Guru, Brian Richards and Emeritus Professor David Hughes from the Imperial College, London.

Some of the key messages raised by Andrew Fenton included:

- Horticulture NZ's vision to create and support an industry worth \$10 billion by 2020 (2007 total revenue exceeded \$5.2 billion, already halfway there)
- The vital importance of mandatory Country of Origin Labelling (CoOL) and educating the local consumer
- The \$40 million cost to industry to implement the ETS in 2008, with no return to industry
- The "Ludicrously unscientific limitations to Biosecurity and importations to Australia"

Brian Richards took to the floor next, identifying the vegetable industry's obsession with process improvement rather than product improvement as being one of the biggest threats to the future viability of food production in NZ. He challenged the audience to find ways to sell less for more, providing value, not volume, to the consumer and to become purveyors of food, furnishings and fashions rather than producers of meat, wood and wool.

Professor David Hughes followed, identifying the requirements that must be met if the NZ horticulture industries are to meet their target of \$10 billion by 2020. These included:

- Great market opportunities must be converted into profitable investments for value chain members
- Great customer and consumer understanding
- Great communications (e.g. on health/beauty)
- Great brands and source of origin security
- Great market-led R&D with captured IP - fresh & lightly processed
- Great blockbuster products - identifiably different and better than the competitors
- Great all-year round availability (offshore partners and/or offshore investment)
- Great advances in post-harvest technology
- Great value chain management
- Great partners for value chain joint-innovation
- Great green credentials
- Great Government support - trade development, trade policy
- Great industry cooperation and joint action

For more information about the Conference and the speakers presentations please visit: <http://www.hortnz.co.nz/2008programme/index.html>

Key messages from the Horticulture NZ 2008 Conference:

- Its not what you GROW, its what you KNOW
- We need to double the amount of food produced on the currently available land to meet the future needs of our increasing world population
- Food consumption trends are changing globally with an increase in affluence in developing nations; food producers need to recognise this and respond accordingly
- Food producers need ONE VOICE with Government and global competitors
- The efficiency of production systems needs to increase
- We need to invest in PRACTICALLY APPLIED R&D
- Care for the Land, care for the People, GO FORWARD
- There is up to 300% mark up applied throughout the value chain, yet growers are going backwards
- ETS = Economic Time Bomb?
- Individual Product Groups control the investment of their levy, not Horticulture New Zealand
- Levy money not matched by Government, however joint funding is sought through private investment
- The inability to produce vegetables all year round is an obstacle to trade for NZ
- There is big opportunity to work collaboratively with Australia on R&D which is not currently being capitalised on
- ETS are going to be implemented globally and the vegetable industry must be proactive
- Carbon foot-printing will become very important
- The amount of 'Consumers with Conscience' is increasing
- Data collection on consumer purchasing trends is vitally important so that growers can identify the gaps in supply and demand and respond accordingly
- The key to sustainability of the value chain is:
 - Transparency throughout the value chain
 - Collaboration among growers
 - Sound market information
 - Firm understanding of customer needs

Summary

The farm visits and related activities provided the opportunity for the young Australian growers to explore new production methods, compare their production systems and build relationships with other growers both in Australia and NZ. The field based growers were grateful for the opportunity to see protected cropping and hydroponic systems, while the pack-house and processing operations generally associated with field grown crops provided inspiration for the protected cropping growers.

The merchant visits introduced the growers to the NZ marketing system, allowing them to draw comparisons with the Australian system, identifying the strengths and weaknesses of the two.

The Horticulture New Zealand 2008 Annual Conference provided the opportunity for the participants to better understand the structures in place to manage and lead the NZ vegetable industry into the future. Many of the issues raised at the conference are also highly relevant to the future of the Australian vegetable industry, and the insight gained from their attendance will no doubt better prepare these growers for the future.

Participants' observations and recommendations about the NZ vegetable industry:

- There are a lot of large enterprises using hydroponic systems, with the majority supplying the export market, creating big risk, as their overhead costs and repayments remain high while commodity prices are highly volatile
- Growers appear to work and communicate together better in NZ
- A lot of farms have corporate funding
- The marketing system could be improved, adopting the Australian system where most produce is traded through a central market in each State
- Labour rates are low in comparison to Australia, and should be increased to attract and retain good staff
- Some on-farm hygiene practices need to be improved
- The NZ industry appears to promote themselves and their products better than we do
- NZ growers are facing the same tough times, with increased input costs and pressure from the merchants to keep selling prices low
- Some of the smaller growers with simpler systems appeared to be making better money than some of the larger operations
- Imported products at the merchants/supermarket were generally of poor quality
- The NZ growers appeared to be more united and had good communication with Horticulture New Zealand
- Export has big advantages and disadvantages, one disadvantage being disease, which can restrict exports

- NZ growers appear to employ more professional business practices than some Australian growers, having a strong emphasis on cost management, budgets and marketing
- The Fresh Vegetable Product Group was set up well and driven by the growers
- Australian OHS&W systems are far superior to NZ systems

Participants' comments on the value of the tour:

- The NZ tour was educational and eye-opening
- Good tour, pity about the awful weather, the constant rain meant we didn't step foot into a single paddock all week
- We saw a wide range of production systems which was good
- It was great to meet other Australian growers, gaining knowledge on how they operate their systems
- The tour was great, providing the opportunity to view new operations
- One key messages I picked up was to be proactive and not reactive to ensure my business success
- Was great to see others growers skills and systems for comparison to our systems
- The conference and the dinners were very well done, and I personally loved it
- The tour leader Mel did a great job given the weather conditions and the lack of opportunity for farm walks and sight seeing
- Overall a job well done from everyone involved

Recommendations for future tours

- 1) It is recommended that similar tours to New Zealand and abroad are continued in coming years, with some tours focussed primarily on young growers.
- 2) The selection criteria on the application form needs to be more clearly defined to ensure that the selected participants are appropriate for the tour.
- 3) Tour groups should not exceed 10 people and 8 days was ample, especially for a big group.
- 4) The farms chosen for visiting need reviewing. Some farms have been visited by the young Australian growers for numerous years now, and their production systems are no longer 'cutting edge'. There are far superior operations that we could have visited, both in Australia and NZ.
- 5) A greater range of operation systems need to be visited. We did not visit any soil based protected cropping operations, despite the fact that we had soil based growers on the tour.
- 6) Similar tours for young growers could easily be organised in Australia, showcasing some of the best production systems here. It too could be incorporated around the Australian Annual Vegetable Conference.