



Know-how for Horticulture™

**Developing strategic
alliances with the
New Zealand
vegetable industry:
Study tour for young
growers, July 2005**

Dr Alison Anderson
NSW Farmers Association

Project Number: VG05075

VG05075

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**Australian Young Vegetable
Growers Study Tour
New Zealand 2005**

Project Number: VG05075
**Developing strategic alliances with the New Zealand
vegetable industry via a study tour for young growers**

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Vegetable Industry
Development Officer,
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MEDIA SUMMARY

Young Vegetable Growers Visit NZ

Six young Australian vegetable growers had the opportunity to observe the practices of their nearest neighbours during a recent eight-day study tour of New Zealand's North Island.

In August, six young vegetable growers were selected to visit New Zealand to attend the 'Produce Plus' New Zealand Horticulture Conference, as well as observe the practices of a number of the country's vegetable farms.

This is the third time a group of young vegetable growers from Australia has visited New Zealand, with the aim of giving them a chance to learn about an overseas vegetable industry and meet other young vegetable growers.

The 8-day tour, led by NSW Industry Development Officer Alison Anderson, set off from Pukekohe, south of Auckland and travelled to Rotorua for the 'Produce Plus' Conference. The conference offered a strong focus on knowing and improving your business, including a talk by Contiki co-founder, John Anderson.

The trip continued on through Ohakune, Feilding and Levin before finishing in Wellington. Farms visited included potatoes, onions, glasshouse tomatoes, carrots, parsnips, leeks, brassicas, shallots, yams, silverbeet, watercress, and lettuce (field and hydroponic).

Throughout the conference and tour, growers were presented with a multitude of networking opportunities, adding to the overall experience.

"The best aspect of the tour was the contacts made and the ideas you get from talking with people," said Leon Canzirri of Western Australia.

The Australian growers also gained an insight into the issues facing the New Zealand vegetable industry, including the carbon tax to be implemented in 2007 (which could cost some glasshouse enterprises in excess of \$150,000 per annum) and the loss of export markets (onions and carrots in particular).

The trip was best summed up by Queensland grower Trent De Paoli"
"[It was] overall a fantastic opportunity for any young person to look outside the square," he said.

"Sometimes we focus too much on the day to day and need to seize opportunities like this to see how things are done in other countries."

Note: This Media Summary appeared in 'Vegetables Australia' Issue 2 and was written by Youna Angevin-Castro and Alison Anderson. A similar article appeared in 'Good Fruit and Vegetables' Vol 16 No. 5 (October 2005).

INTRODUCTION

As a result of successful young grower tours to New Zealand in 2001 and 2002 AUSVEG decided to again run a tour in 2005. It is acknowledged by the decision makers within the Australian vegetable industry that it is very important to develop young Australian growers so that they are better positioned in the future to make decisions and lead the industry.

The purpose of the tour was to enhance the skills and knowledge of the Australian young growers through experiencing the New Zealand vegetable industry. This was achieved by visiting 15 farm businesses in New Zealand and by attending the New Zealand vegetable industry conference where they were able to meet many people involved in the New Zealand vegetable industry from right across the supply chain.

Additionally the tour allowed the young growers to form friendships and expand their network with growers in New Zealand and within their own group. Many young growers have not had the chance to learn about another country's vegetable industry or to attend a large industry conference. This tour provided that opportunity.

A vegetable grower from each state was selected to participate in the tour. They were selected because of their keenness to improve their own businesses, desire to learn, expressions of interest to become more involved in decision making within the Australian vegetable industry and leadership potential. Tour participants were assisted during the trip by the NSW Vegetable Industry Development Officer, Alison Anderson.

Each evening and on the bus between farm visits the tour group discussed what they had seen and learned during the day. Everyone had to tell the group what they had benefited most from learning and comment on any recommendations they had for the Australian vegetable industry.

Upon returning home each tour participant was expected to give a talk to growers in their local area. A PowerPoint presentation was developed and given to each tour participant.

This report is a collation of the information the young growers collected on the tour.

ACKNOWLEDGEMENTS

Farm visits, conference registration and accommodation was organised by AgTour Australia. In New Zealand the tour group was assisted by Vegfed and local growers. Special thanks is given to Keith Vallabh (Pukekohe), Steph Rollinson (Ohakune) and John Clarke (Levin).

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

Queensland

Trent De Paoli

Technical Manager, AustChilli P/L
Chillies

New South Wales

Kevin Pham

Greenhouse cucumbers

Victoria

Stuart Grigg

Production Coordinator, Tripod Farmers
Lettuce (domestic and export)

Tasmania

Michael Nichols

Potatoes, broccoli, onions, peas, wheat, poppies, cattle and poultry

South Australia

Hien Le

Greenhouse cucumbers and tomatoes

Western Australia

Leon Canzirri

Pumpkin, cauliflower, cabbage, broccoli, tomatoes and lettuce

Tour Leader

Alison Anderson

Vegetable Industry Development Officer (NSW)

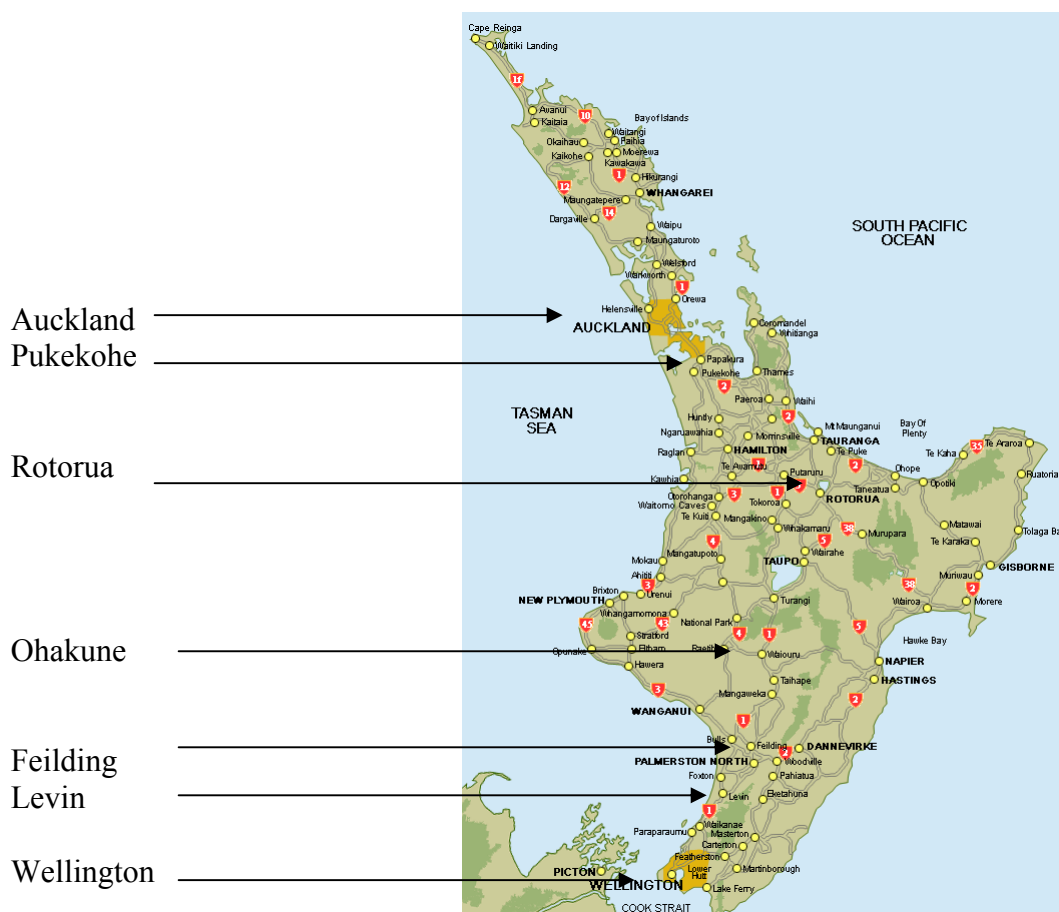


Back Row (L to R): Michael Nichols, Hien Le, Trent De Paoli, Leon Canzirri, Stuart Grigg,
Alison Anderson
Front: Kevin Pham

ITINERARY

The 9 day tour ran from Friday 29th July, 2005 to Saturday 6th August, 2005.

- Day 1 Meet in Sydney, briefing session at HAL
- Day 2 Travel from Sydney to Auckland (New Zealand) and onto Pukekohe, farm visits in the Pukekohe area
- Day 3 Farm visits in the Pukekohe area, dinner with Pukekohe Vegetable Growers Association committee members
- Day 4 Farm visits in the Pukekohe area, travel to Rotorua for 'Produce Plus' conference, conference dinner
- Day 5 'Produce Plus' conference, conference dinner
- Day 6 'Produce Plus' conference, conference dinner
- Day 7 Travel to Ohakune, farm visits in the Ohakune area
- Day 8 Travel to Wellington via Feilding, Levin and Otaki (just south of Levin) for farm visits
- Day 9 Travel from Wellington to Australia



New Zealand North Island with key towns visited on the tour marked.

BRIEFING SESSION AT HAL

A briefing session was held for delegates before departure to New Zealand.

AUSVEG Industry Development Manager, Jonathan Eccles set the scene for the tour and explained the objectives of the tour and what was expected of tour participants. The great opportunity the young growers had been given was highlighted.

Jonathan also gave background information on AUSVEG, HAL and the Australian Vegetable Industry Research and Development Program. He explained how decisions were made and discussed some of the research programs that the vegetable industry had funded. Information about New Zealand's Vegfed was given, how it operated and partnership programs between the Australian and New Zealand vegetable industries. Similarities and differences between the Australian and New Zealand vegetable industries were also pointed out.

Gerard McEvelly (HAL) gave the group more background information on HAL and its programs. He stressed the partnership between industry and research providers and how industry has to plan (with HAL's help) so they know how to best invest their money.

A talk on export strategies was given to the group by Wayne Prowse (HAL). He discussed the export initiative which has the goal to expand Australia's horticultural exports by more than three times the 2002 levels (\$711m) by 2010. The talk included information on Australia in the world market, challenges Australia faces in the world market, market access, development and growth and the AUSTRALIA *fresh* Certification Scheme.

FARM TOUR REPORT

PUKEKOHE

After flying to New Zealand the tour group travelled south of Auckland to Pukekohe. The group was met by Keith Vallabh, local grower and committee member of Pukekohe Vegetable Growers Association Incorporated (PVGA). Seven vegetable farms were visited in the area and the group had the opportunity to discuss with farm owners and managers their operations and issues relevant to the local and New Zealand vegetable industry. The group also had dinner with committee members of the PVGA which the young growers found extremely valuable.

Pukekohe Background Information

Settled in the 1860s, Pukekohe (meaning “the hill of the Kohekohe tree” New Zealand’s native mahogany) developed quickly to be one of the largest areas of market gardening in New Zealand. With a temperate climate and rich soil, major growing and packing operations are today located in the Pukekohe area.

Pukekohe is the geographical centre of the Franklin District and is 52 km from Auckland City and 97 km from Hamilton. The area provides nearly all the fresh vegetables for the Auckland regional markets and 1.7 million people live within an hours’ drive of Pukekohe.

Pukekohe is famous for its exports of potatoes, onions and kabocha (buttercup squash). Approximately 200,000 tonnes of onions valued at \$100 million are exported annually.

Annual rainfall is between 1140 mm and 1400 mm and falls on 144 days of the year. Annual sunshine hours are between 1800 and 1900 and the average maximum temperature in January is 25.6°C and in July 13.9°C. Minimum average temperatures are 13.9°C and 6.0°C respectively for January and July. Many growers use irrigation from surface water streams and springs, others from the adequate underground aquifer.

Pukekohe Stadium is home ground for the Counties Rugby Football Union. Promoting horticultural produce and with the aim of encouraging the public to consume more fruit and vegetables the stadium is currently known as the Growers Stadium and has a ‘5+ A Day’ sign at the front gate.

The Pukekohe Vegetable Growers Association Incorporated (PVGA) has operated in various forms as a growers’ organisation since the early 1900s. It represents approximately 300 of the growing industry businesses of the South Auckland Region, some of whom have operations throughout New Zealand.

The PVGA is affiliated with the New Zealand Vegetable and Potato Growers Federation, Vegfed. An elected committee of President and 18 members meets monthly and provides a forum for discussion and action on relevant issues,

dissemination of information and social interaction. There is a new President elected every 2 years. This shares the job around and spreads skills within the association.

Keith Vallabh says that more growers from the Pukekohe area are getting involved in the PVGA and Vegfed. They compete fiercely in the marketplace but know that at a national level they have to work together on generic issues for the good of the industry.

PVGA members are innovative and proactive. The PVGA initiated the Franklin Sustainability Project to champion and promote best practice guidelines amongst the commercial vegetable growers of Franklin District for the sustainable management of the natural and physical resources of the area. The Franklin Sustainability Project for environmental care won the prestigious Ministry for the Environment Green Ribbon Award in 2000. Patrick Ulloa (Vegetable Industry Development Officer, Victoria) was impressed by the project on a visit to Pukekohe in 2001 and it gave him some of the ideas that were used in developing the Enviroveg project in Victoria (now a national program).



Pukekohe Hill (above) dominates the Pukekohe landscape. From the top there is an extensive view of the Franklin District (below). Auckland Harbour and Manukau Harbour can be seen in the distance past the patchwork of fields. As in Australia, the encroachment of houses on farmland is becoming an issue, and is having a major impact on how growers run their businesses.



Balle Bros

Contact Maurice Balle

The Balle Bros Group is based in Pukekohe. It is an integrated agricultural business with control over farming production, transport and packhouse infrastructure. They maintain close relationships with both their domestic and export customers. Their reputation has been built on quality and consistency.

Onions (70% for export), potatoes, carrots, kabocha/export squash (90% exported to Japan), and pumpkin are grown. 24,000 tonnes of potatoes are for processing. They have diversified into sheep and cattle and may get involved in dairying in the future.

Balle Bros is a wholly family owned and operated business that also relies on the support of numerous key staff for its key operations. Seven brothers are involved and they each have their own responsibilities (e.g. marketing). An excess of 100 permanent personnel are employed in operations. Permanent staff is supplemented with temporary positions in the peak harvest season, predominantly from the Pacific Islands. Packhouse staff are on penalty rates, while field staff are on a flat rate (\$14-15 per hour for tractor drivers).

It is becoming more difficult to find labour. Where possible Balle Bros will mechanise to take on efficiencies but they will continue to use labour for hand-clipping onions (as it increases packout and it gives them a market advantage in the UK). Kabocha is packed into crates in the field. It costs 8¢/kg if it goes through the shed.

Green crops are important to Balle Bros and they have always used them as they improve soil structure. Green crops (oats or mustard) are planted after each harvest. Double cropping increases returns today, but is not sustainable in the long-term. Green crops are becoming more popular in Pukekohe as years of cropping have depleted soil organic carbon. Green crops also have a biofumigation role. They help manage *Phytophthora* and *Fusarium*.



Left: The Balle Bros facility at Pukekohe.

Right: The group with Mauric Balle and Keith Vallabh. From L to R Stuart Grigg, Kevin Pham, Maurice Balle, Leon Canzirri, Keith Vallabh, Hien Le and Trent De Paoli.

Irrigation is not relied upon due to good rainfall. They do not have dams or bores but buy farms with creeks on them. They would need to irrigate if they were growing leafy crops.

Balle Bros is EUREPGAP accredited. They also have the NZ Quality Assurance program in place which is benchmarked against EUREPGAP. There is only one quality assurance program in New Zealand and it is all that is required to sell on the domestic market. The two supermarket chains have agreed to use it. Maurice believes that the NZ Quality Assurance program is the best thing that has happened to the New Zealand vegetable industry. It has forced the industry to become more professional and growers must be accredited to sell to supermarkets and agents. The NZ Quality Assurance program was supported by Vegfed when it was initiated. Grower that are accredited often show the Approved Supplier: New Zealand Fresh Produce logo on their packaging. Maurice also says that you need to educate your staff to keep good records and to understand that they are in the food business.

Growsafe is the chemical user's course that is required in New Zealand. To buy chemicals you must have a handling certificate. It is said to be grower friendly and driven by growers rather than by bureaucracy.

Maurice has noticed a decrease in the numbers of smaller growers in the Pukekohe area, especially in the last year as prices have decreased.

Maurice says that he is happy to be involved in export and they are only 30 minutes from the port. The domestic market in New Zealand is small with a population of only 4 million people. He believes that the population could increase to 10 million, and still New Zealand would not need any more growers.

Globally South Africa and South America are New Zealand's main competitors. Maurice believes that Chile could become their biggest threat and that we have not seen what China is capable of yet (but does not think that Chinese onions will go to the UK). The soil and weather in Pukekohe is perfect for onion production and with good relationships and continued high quality Maurice sees Balle Bros continuing to be exporters for a long time yet.

Balle Bros do pay an export levy from promotion. They do some private promotion as well. They are happy to pay a levy to Vegfed as they help with tariffs and it is beneficial for the whole country to work collectively in some areas.

Balle Bros have not implemented integrated pest management (IPM). They are forever fine tuning their spray program however. Soil tests are done in-house and are carried out by their full time employee, who holds a Bachelor of Science in Horticulture.

Balle Bros pride themselves on their reputation in the marketplace, which has been built on quality and consistency. Their company mission is:

“Balle Bros will be the Preferred Supply Source of Premium Quality New Zealand Fresh Produce for Consumers in both National and International Markets.

We will focus on selected Food Retailers, Packers and Processors, providing these customers with agricultural products that meet their consumer's needs.

We will invest in production processes, procurement efficiencies, land management experience, logistical expertise, information systems, research and development and service will further develop our reputation for quality and to foster loyalty to our brand.

Above all else, we will provide continuing benefit to our customers, our employees, and our shareholders while having a positive impact on the wider community.”

Key messages

- Quality, consistency and good relationships with your customers are a good basis for a successful business.
- Protect future income by looking after your soil.
- A single, compulsory quality assurance program is the best thing that has happened to vegetable industry in New Zealand.
- Invest in your staff, they are an asset.
- Mechanise to improve efficiencies.
- Find your market advantage.
- Grower numbers are decreasing.
- It is beneficial for growers to work collectively through their association.
- Diversify.
- In a family operated business ensure each person has their area of specialty and key responsibilities.
- The New Zealand domestic market is small.
- Continue to improve your processes and systems.



Balle Bros 10 kg bag of onions.

Nicholls' hydroponic lettuce and watercress farm

Contact Bruce Nicholls

Bruce has been growing hydroponic fancy lettuce for 15 years. He started growing in the ground under plastic but moved to hydroponics because it was easier having clean roots and growing time was faster.

The farm is 5 acres, with 2 acres under plastic. He has 50,000 – 60,000 lettuce holes in the hydroponic tables.

There are 2 full time staff and 1 part time staff on the farm plus Bruce.

To control lettuce aphid Bruce uses lettuce aphid resistant varieties. They are more expensive than non-aphid resistant varieties but it is the only way to have a quality product to sell. He is only using 1 non-aphid resistant variety. In winter he can drench seedlings with Confidor®. Lettuce grows too fast in summer and as a result the withholding period cannot be met if Confidor® is applied.



Left: Hydroponic lettuce production.
Right: The group talking with Bruce (at left).

Onion thrips used to be Bruce's biggest problem. It was difficult to get registered chemicals to control them. The key to getting them under control was to get them correctly identified but they do not do this until the 2nd year they were a problem. *Pythium* can be problem. Bruce treats bore water with ozone and in summer he uses Sporekill. He suffered up to 40% loss from *Pythium* before he used ozone treatment.

Seedlings are sourced from a nursery and delivered 2 times per week. He used to grow his own but space was an issue.

Bruce has NZ Quality Assurance. He is glad that having a quality assurance system in place is compulsory in New Zealand, despite the extra paperwork. It has lifted standards, growers are more professional and they are more aware. Residue testing is carried out by the supermarkets.

Water is sourced from a bore and supply and quality are not an issue. However, the top aquifer in the area does have high nitrogen levels at times. Dumping of water is becoming an issue and run to waste will become a thing of the past. Larger operations

are building ponds but it is difficult for smaller farms. Bruce is able to use water for up to 4 weeks (2-3 weeks in summer) before dumping it for clean water.

Supermarkets expect supply 52 per weeks per year of the same quality. Lower prices are being received by growers from the supermarkets but they keep the margin high in-store. Price fluctuations are not as great as they used to be. There used to be highs and lows and growers relied on those highs. Bruce believes that there is still a place in New Zealand for central markets for price setting but the situation has evolved.

Bruce supplies to the Foodtown supermarket distribution centre and some PAK'nSAVE supermarkets (Foodstuffs group) directly. Growers receive 60 – 80 cents per head at the farm gate. Foodtown sell for \$2 per head. Some of the smaller retailers such as Fruitworld are selling for approximately \$1 per head. Foodtown believes that if they drop the price they will not get any more sales.

Bruce says that his biggest challenge is survival. He has chosen to diversify and now grows 1500 m² of watercress. He is now in his second winter of production and admits it has been a huge learning curve.



Left: The watercress production system.
Right: Watercress.

Mesculin mix has become increasingly popular in New Zealand and Bruce said that because he did not get on board with this product it has affected his sales. Sales of whole fancy lettuce have decreased by about 30%.

Key messages

- Always be prepared for change.
- Water resource management is becoming increasingly important.
- Diversify.
- Compulsory quality assurance was good for the New Zealand vegetable industry.
- Get pests and diseases correctly identified immediately.
- Need to stay competitive for survival.
- Access to chemicals is difficult for some crops.
- Lettuce aphid has been a challenge but has been managed using resistant varieties.
- Supermarkets expect consistent supply and their margins are high.

A.S. Wilcox & Sons Limited

Contact Lex Wilcox

A.S. Wilcox & Sons Limited is a family owned company incorporated in 1954. The Wilcox family have grown vegetables in Pukekohe area since the 1930s. The third generation of the family are actively involved in the business and so Lex and his brother have continued to grow the business. For example, a new packing shed was built 15 months ago at Pukekohe.

The A.S. Wilcox Group of Companies is made up of A.S. Wilcox & Sons Limited, Southern Fresh Produce Limited, Plains Produce Limited and Potato Supplies Limited. Companies within the group are privately owned. The motto of the group is “growing with pride and passion.”



The new packing shed at A.S Wilcox. In the photo on the right the window that was incorporated into the design to provide employees with a view and daylight can be seen.

Potatoes, onions, carrots and persimmons are grown and marketed. They grow 75% of the product they require and source the rest from other growers. About 2500 acres are owned by A.S. Wilcox & Sons at Pukekohe, Waikato and Ohakune where growing activities are based.

Packing and distribution facilities operate from Pukekohe, Levin and Rakaia in the South Island. Packhouse facilities are situated for easy access to the growing regions, national and international transportation systems.

About 140 permanent staff are employed. The Wilcox family and management team recognise the vital part their employees play in the success of the business. A culture of trust, respect and fairness is encouraged.

Southern Fresh Produce Limited is the export division of the group. Onions (30,000 tonnes per year) and persimmons are exported under the ‘So Fresh’ brand. Onion production is centred around export requirements and types grown include brown storage, red and mild. Onions are exported in bulk containers.

The rise of the power of the two major supermarket chains in New Zealand has had a major impact on the way the Wilcox family do business. They decided 25 years ago that the old wholesale market system was not going to survive. At this time they

started delivering washed potatoes directly to the Foodtown/Progressive supermarket chain. They are now the category manager for potatoes, carrots and onions. It was a gamble at the time but the partnership has worked. They are happy supplying the Foodtown supermarket chain, finding them hard but fair. They also find them to be reliable payers (every 2 weeks).

Potatoes are supplied all year round to Griffin Foods for crisping. They store potatoes so that they can achieve this.

Lex believes that the New Zealand fruit and vegetable industries are experiencing the lowest prices ever. For example \$2 is received for 10 kg of potatoes wholesale. As a result grower numbers have significantly declined. Part of the problem is that consumption is stable yet growers are producing more and it is not wanted. Another factor is that consumers do not perceive value when they see it and are not as willing to prepare meals from scratch. Additionally growers have improved their quality and it is much more consistent than in the past when it used to be quite variable.

Lex recounted the story of growers going to McCains in Timaru to ask for a price increase. They actually got decreased conditions and were told that if the conditions were not accepted McCains would source product from China. Lex says that New Zealand is not Australia's problem, it is China.

New Zealand relies heavily on onion exports to Japan. However, China can send onions to Japan for about 50% of what New Zealand could agree on. This will impact on the New Zealand export industry in the future. Often the crates are worth more than the product in them. Lex states that once production and processing facilities move to China they are not coming back to New Zealand.

New Zealand exports about 80% of its onions to Europe and the UK. Approximately 250,000 tonnes are exported with 30,000 tonnes coming from A.S. Wilcox & Sons.

Land prices around Pukekohe have increased significantly. Many growers are borrowing against the value of their land to keep going. Lex worries that this is devaluing their asset and it is not sustainable.

At A.S. Wilcox & Sons they believe better promotion is needed to change consumers' views on vegetables and this is an area the company invests heavily in. Lex believes that Government and industry might be promoting fresh food the wrong way. There is a focus on health but he says that we need to promote taste, the feel good factor. This is the way to get children wanting to eat fresh food.

A.S. Wilcox & Sons use the 5+ A Day logo on their packs as well as recipe ideas and information about the product, e.g. what different types of potatoes are suitable for what type of cooking. They have approximately 50 lines. In association with major customers unique marketing strategies and exclusive brands have been developed to assist with fresh produce presentation and sales within retail networks, e.g. the Home Farm and Prime Harvest brands.



Some examples of packaging and A.S. Wilcox & Sons brands.

As with other businesses visited A.S. Wilcox & Sons do not have a contract on paper with their supermarket. Business is based on a good relationship and the consistent supply of a quality product.

Lex feels that in both New Zealand and Australia we should focus on labelling our own produce to say that it is “home grown” rather than keep fighting to get Country of Origin Labelling (CoOL) laws introduced. We need to take action ourselves rather than wait for someone else to do it for us.

Quality assurance is important to the Wilcox family. It is good for the industry to prove to consumers that vegetables are safe. It also helps New Zealand export to other countries.

When the new packing shed was built at Pukekohe the Wilcox family aimed to build the shed around an efficient workplace rather than build a shed and then fit the business into it. They are ergonomically set up to handle large volumes. The shed includes a large window so that staff can look out to the paddocks and see daylight. It was thought that being in a large shed all day could get depressing.

The company website is www.aswilcox.co.nz

Key messages

- Be committed to long-term relationships with your land and your customers.
- Need to promote taste as well as health.
- The 2 supermarket chains in New Zealand control 75% of the market.
- Growers cannot keep overproducing without an outlet.
- New Zealand exports more to Australia than vice versa.
- New Zealand is highly dependent on export markets (80% of NZ produce exported) and with the rise of China as an exporter New Zealand is losing markets.
- Growers are currently very efficient – where can they make more gains even though they are being by pressured by Government to become more efficient?
- New Zealand/Australian growers have to be proactive and label their own produce rather than rely on CoOL laws.
- Growers need to unite when speaking with Government about important issues, e.g. the movement of processing facilities to China.
- Look after your staff as they are vital to the success of your business.
- Crop improvement programs important and continually evaluate varieties.
- It is not sustainable to borrow against the value of your land to keep your business going.

B. Das & Sons Limited

Contacts Harry and Sam Das

B. Das and Sons is a family owned and operated business. They farm 300 acres, within a 5 km radius.

They grow onions (100% export with 80% to the UK and 20% to France), potatoes (95% domestic, 5% exported to the Pacific Islands), lettuce (for Burger King), spinach (Foodtown), cauliflower (fresh market), cabbage (26 tonnes per year for processing). The onions are exported through A.S. Wilcox & Sons under their 'So Fresh' brand and are all machine harvested rather than hand-clipped (the advantage for having a hand-clipped product is decreasing). All lettuce and spinach is pre-sold. Harry and Sam believe you have to have a market for your produce rather than trying to find a market once it is growing.

There are 10-12 full time employees and 6-10 casual staff on 30 hours per week (this increases to 45-50 hours per week in summer).

There is a labour shortage and they have invested in machinery where they can take over from manual labour.

B. Das and Sons are known for their quality produce. Some of their customers have asked for larger quantities but they will not supply more. They are happy that they can provide good quality at the amount they are currently supplying. They do not want to expand the business because Harry and Sam's children will not be continuing in farming (Harry and Sam tell their children that the farm will not be there for them).



Examples of packaging for B Das & Sons spinach. Note the inclusion of the Approved Supplier: New Zealand Fresh Produce logo and the 5+ A Day logo. Green stripes are used on packaging to enhance the colour of the spinach.

To make better use of their washing equipment and to keep employment consistent for staff potatoes are washed for other growers, e.g. Balle Bros.

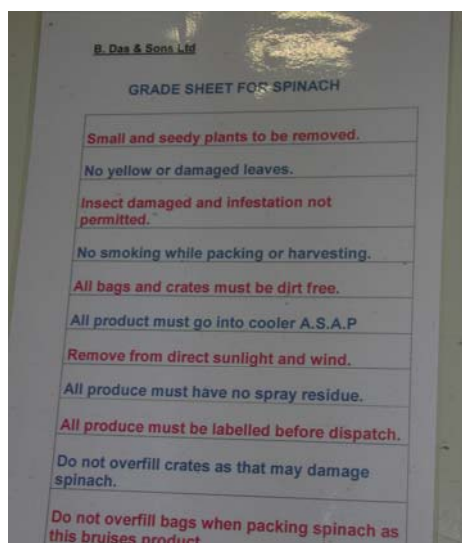
There is cooperation between growers for land swapping to help with rotations. Harry and Sam say that you need to look after your soil, even if you are leasing it. Rotations are seen as an important part of looking after the soil.

There are 3 scouts used for monitoring insects and diseases. They come from local rural suppliers and Harry and Sam have no problems with them being resellers. They say that the mentality of calendar spraying is decreasing.

Grower numbers are decreasing because of the increasing cost of compliance, difficulty to get labour and some problems with getting paid for their produce. Prices received are also making the industry less viable.

Confidor® applications or lettuce aphid resistant lettuce varieties need to be used to ensure lettuce is free of lettuce aphid.

As well as NZ Quality Assurance B. Das and Sons have EUREPGAP. They say that it does not pay extra but they must have it.



The B. Das & Sons guide for packing spinach. The sign is hanging in the packing shed.

Key messages

- Do not try to expand your business if you do not have the staff or will jeopardise your quality.
- Use IPM and do not rely on calendar spraying.
- Have a market for your produce before you plant it.
- Look after your soil using rotations. Swap land with other growers for crop rotation.
- Make the most out of your equipment (e.g. wash for other growers). Do not have it standing idle.
- Labour is becoming more difficult to find.
- Cost of compliance is increasing and this is contributing to the decline in grower numbers.
- Packaging is very important. The use of coloured stripes in the colour of the product in the package can be used to enhance its colour.

Hinemoa Quality Produce

Contact Chris Nichollson

Hinemoa Quality Produce is a family business operated by Chris and his father, John.

They grow potatoes, onions and pumpkins and run livestock on 700 acres. They consider themselves fortunate to own so much land for rotations.

They used to grow 120 acres of onions but this year this was cut back to 40 acres. A co-operative of six growers, NZ Growers, exports their onions for them, mainly to Europe and the UK. Onions are also sent to the central market. Hand clipping is used for sweet onions as they are soft.

Potatoes are grown mostly for the local market (120 acres) but they are also exported to Fiji and Tahiti. Pumpkins (40 acres) are grown for the local market.

There are 5 full time employees on the farm, including Chris.

Mustard is grown before pumpkins as the pumpkins benefit from this. The mustard is a green manure and helps stabilise the soil in wet periods. Maize is also grown under contract to a grain company.

Thrips are sprayed every week. There are stations (installed by rural suppliers) monitoring for blight and mildew pressure and they receive a fax each day to let them know whether there is low or high pressure. An independent agronomist is used as well as the agronomists from resellers. Care is taken with moving machinery between paddocks so as to prevent disease introduction to one paddock from another.

Hinemoa Quality Produce has EUREPGAP as well as NZ Quality Assurance. It takes a lot of work to be EUREPGAP accredited.

Key messages

- Use rotation crops that benefit subsequent crops.
- New Zealand's export markets are under threat and declining.
- Monitor for pests and diseases.
- Use good hygiene to prevent the spread of diseases.

Young Wah Chong Limited

Contact Howe Young

Young Wah Chong Limited is operated by four brothers, including Howe. They grow potatoes, cabbage, onions and pumpkins. The farm was established in 1925 and Howe is 2nd generation. It is unlikely that the 3rd generation will continue on-farm.

Howe is President of the Chinese Growers Federation, all of whom are members of Vegfed. Howe is also on one of the Vegfed product groups. Vegfed assists the Chinese growers, who mostly have small farms (e.g. some information such as spray labels, brassica IPM has been translated).

It is voluntary to join the Chinese Growers Federation. Fees are based on acreage but it is a maximum of \$120 per year. The Chinese Growers Federation has an annual one day conference where local issues and marketing are discussed. Chemical user training courses are the same cost, regardless of ethnicity. In some cases course are more expensive for growers who require translation. This differs to Australia, where some LOTE (language other than English) grower groups have received subsidised training.

The Chinese Growers Federation began in 1942 during WWII. New Zealand was supplying a lot of vegetables to forces in the South Pacific and the Government of the time did not want to negotiate with individual growers. As a result the Chinese Growers Federation was formed. The Chinese Growers Federation became affiliated with Vegfed when it was formed.

There are still some Chinese growers in New Zealand who are not members of the Chinese Growers Federation or Vegfed. They are very small growers who only supply to restaurants or similar. The Chinese Growers Federation wants all growers to be members of the Federation and Vegfed and to be accredited with NZ Quality Assurance. They do not provide information to growers who are not members. If growers want to have access to information then they need to join the Federation and Vegfed.



Left: Stuart Grigg (at left) with Howe Young and Michael Nichols in front of cabbage for KFC, whom Howe has been supplying for 24 years.
Right: Peeled onions for Pizza Hut.

Young Wah Chong has had the contract to supply cabbage to KFC for 24 years. Approximately 95% of KFC's cabbage requirements are met by Young Wah Chong. To guarantee this market Howe had to offer free cartage after another grower tried to undercut him. They also peel some onions for KFC (Pizza Hut).

Howe has done a lot to educate Chinese growers about their true costs of production and promotes benchmarking. This will help ensure growers do not sell their produce at unsustainable prices. Vegfed is continually updating what it costs to grow vegetables and this helps growers set prices.

Howe is concerned with the lack of transparency in the market place. Brokers are not governed by anyone and he feels they look after the retailers rather than the growers. Some growers are paid every 2 weeks, some every 5 weeks. Growers also are not aware of what the broker is charging and how much they sell their product for.

Pest and disease monitoring is done by the resellers. Since they started using scouts and stopped calendar spraying they have reduced spraying by about 30%.

Key messages

- Growing is becoming more expensive while returns are diminishing.
- Many growers do not know what their real costs are. Benchmarking is critical.
- Lack of transparency in the market place.
- There is a strong Chinese Growers Federation in New Zealand but members are also part of Vegfed. The fragmentation that occurs in Australia does not exist.
- Growers that do not have English as a first language do not receive discounted chemical user training courses.
- Growers need to be united and not let retailers play growers against growers.

Status Produce Limited

Contact Brian Hart

Status Produce was started by 5 people in 1996 with 6 ha under glass. In 2002 the company was bought by Turners & Growers and publicly listed. There are now 20.5 ha under glass in total with 10.5 ha being completed in early 2005 and 4 ha close to Auckland International Airport. There are about 150 ha under glass in New Zealand.

Status Produce is the largest tomato grower in New Zealand and they are the main supplier of tomatoes to the Foodstuffs supermarket group. They supply cocktail tomatoes through to full sized beef tomatoes (approximately 30 lines in total) and supply 52 weeks per year and can achieve this comfortably. They do not grow cherry tomatoes, sourcing them from other growers. Tomatoes are also supplied to the agent, Turners & Growers. More information about their premium brand (which receives a premium price), Beekist can be found at the website, www.beekist.com



Brian Hart pointing out the yellow sticky traps used as part of the IPM program at Status Produce. The group are all wearing booties due to the strict hygiene practices at Status Produce.

Having facilities close to the airport is good for their export season (October to April) when they export to Australia and the Pacific Islands. About 400 tonnes is exported.

Dutch technology is used. The temperature within the glasshouses is kept at 18.5 – 19°C 24 hours per day. Temperatures can be pushed higher when there is more light being received with maximum production of tomatoes occurring at 19 – 20°C. The target yield for specialties is 30 kg per m².

At the Pukekohe site planting occurs in March/April as they run a winter program at the facility. This allows them to also supply some of their competitors so that they can meet their demands from the Progressive/Foodtown supermarket group.

Every week plants are clipped and the trusses pruned.

Carbon dioxide is pumped through the crop. The carbon dioxide is a by-product of heating with natural gas. Hot water is pumped through pipes in the glasshouses, which also double as a rail for trolleys used by staff when pruning and picking. Excess heat is stored in a tank during the day for use at night.

Cocopeat is used with a tile drain underneath. The irrigation system is closed and there is about 30% runoff for reuse. Runoff is taken to a holding tank sterilised using UV before being put back into the system.

Status Limited has 2 bores and a dam for water collected from glasshouse roofs. If they did not recycle water they would be under pressure in summer. Recycling water also saves on fertiliser costs.

Status Produce employs 6 people per hectare. No external consultants are used. A labour registration system is used (PrivAssist by Priva). Every person has a code as does each job. Employees enter their code into the system, along with the row they are working in and the code for the job they are about to undertake. Time is automatically recorded. Sourcing labour can be difficult, especially in summer.



Left: A worker on one of the trolleys. The pipes are used for heating and as a rail system.
 Middle: The PrivAssist system
 Right: Codes for different tasks to enter into the PrivAssist system.

Status Produce uses integrated pest management (IPM) as they use bumble-bees for pollination. This means that they cannot use chemicals. Yellow sticky traps are placed throughout the glasshouses. Whitefly is their main insect pest problem. The beneficial, *Encarsia* (a whitefly parasitoid) is used to target the 1st instar of the whitefly. Whitefly is also controlled with the use of soap-based products. Dipel is used to control grubs as Bt does not adversely affect bumble-bees. Diseases such as *Botrytis* are controlled with climate, e.g. venting to reduce humidity. Good hygiene practices are also employed, e.g. feet dips and booties.



Left and middle: Bumble-bee sign to warn workers that bumble-bees are used for pollination in the glasshouses and the boxes that the bumble-bees live in.
 Right: One of the many signs reminding staff to adopt good hygiene practices.

Cucumbers have been grown as a short cash crop. They were grown over the summer of 2004/05. No grower is currently dominating the New Zealand cucumber market.

The carbon tax is to be introduced in 2007 as a result of New Zealand signing the Kyoto Protocol. Brian believes that the USA and Australia were smart not signing it. It will cost them approximately \$150,000 per annum. They do not believe it will break them but it will be very difficult for companies in the South Island that really rely on heating and use coal to do so. Status Produce uses natural gas for heating and it is relatively efficient.

As in other sectors, the numbers of tomato growers in New Zealand is decreasing. There were about 1000 growers 20 years ago but now there are less than 250 and about 100 serious growers. There are 5 sizeable tomato growers. This decrease in numbers has come about from the supermarkets demanding consistency of supply from their suppliers and because of the increasing costs of compliance. Brian feels that they would now be better off investing in Australia.

Brian has a positive outlook and wants Status Limited to continue being seen as the leader in tomato production in New Zealand.

Key messages

- The carbon tax is going to have a major impact on the New Zealand glasshouse industry.
- Growing under glass gives an advantage over field growers as the environment can be controlled.
- Adopt IPM.
- Good hygiene is critical.
- Recycling water saves money on water and fertiliser and reduces demand on water resources.



Left: Brian Hart with Leon Canzirri.
Right: Recently picked tomatoes.

OHAKUNE

Ohakune is well known for carrot growing. The soil is volcanic and well drained. Carrots can be left in the ground as the soil acts as a freezer and preserve the carrots until spring. Most growers in the Ohakune area lease land from other growers or lease Maori land to help with rotations. The area has suffered due to a decline in demand for their carrots in Japan as a result of China now producing export carrots.

Willie Chan Ltd.

Contact Sonny Chan

Willie Chan Ltd. is a family farm (280 acres) growing carrots and potatoes. They have been farming for 40 years in the Ohakune area. Sonny is 2nd generation but there will be no succession. The reason given was the long hours involved in vegetable growing and lack of time to spend with family.

The Chan's grow 200 acres of carrots (Paramount, Mastro) and yield 30 – 35 tonnes/acre. Their rotation is 1 potato crop, 2 – 3 carrot crops and then pasture (they also keep cows).

There are 7 full time employees (four from the Chan family) plus seasonal workers. Wages for shed staff are a minimum of \$10 – \$12 per hour. Some staff earn up to \$18 per hour if they are driving tractors or are more experienced.

Sonny is in charge of packing while his brother does is responsible for field work. They plant carrots September – December and harvest February – October. Carrot growing time is approximately 120 days.

An advantage they have over other carrot growing areas the Ohakune volcanic, free draining soil. When the carrots are mature they can be left in the soil and it acts as a freezer. They do not deteriorate until spring regrowth occurs.



L to R: Trent De Paoli, Hien Le and Michael Nichols enjoying Ohakune grown carrots.

Packing is done six days per week. They wash 450 tonne per week and dig 75 – 80 tonnes per day. Their packhouse was originally outside of Ohakune but is now in the residential area. This is making it more difficult to get consent for any development. If their children were going to continue farming they would have shifted many years ago.

One of their challenges is dealing with waste water. They have 3 settlement ponds and from them water trickles into the stream. The regional council tests their water regularly. Water costs are quite high (\$18,000 per year).

All of their produce is pre-sold on the domestic market. Sonny stressed the importance of having produce pre-sold. They have been supplying the Progressive/Foodtown supermarket group for 30 years and no contract has ever been signed. They have always treated each other well and believe that building strong relationships is more important than a written contract. Most of the produce is sent bulk to the supermarket for packing and some is sent to the agent Turners & Growers. Seventy percent of the volume of carrots that are sold through Foodtown in the North Island are Willie Chan Ltd. carrots. They also pack a small amount under their own name for a few supermarkets in the south of the North Island.

They have NZ Quality Assurance and were probably the first in the area to have it because they supply a supermarket. Some growers are not accredited but they would not be able to supply agents or supermarkets.



Willie Chan Ltd. packed carrots, proudly displaying that they are Approved Suppliers.

The Chan's used to grow baby carrots but did not continue as they did not fit into their operation.

Their main disease problem is violet root rot in carrots.

Key points

- Build good relationships with your buyer – worth much more than a written contract.
- Use your environment to your advantage, as done here with storing carrots in the ground.
- Do not grow what you do not have a market for.
- Not being accredited by the quality assurance program severely limits your market in New Zealand.

Mountain Carrots (Sunrise Coast New Zealand Ltd)

Contact Russell Watt

Mountain Carrots is an export company (owned by the marketing company Sunrise Coast), exporting Koyo carrots to Japan. There is an opportunity to supply table carrots in their off-season and the window is 10 weeks (February to mid-April). Mountain Carrots focuses on this 10 week window and all their costs and structures are based on it.

They used to supply carrots to South East Asia 6 months per year but this market has disappeared as a result of China now exporting to South East Asian countries. Mountain Carrots were exporting to Japan, Thailand and Malaysia, with Western Australia sharing the market. However, due to the tyranny of distance they have lost the market.

They have kept the Japanese market because to supply to Japan you must have a high quality table carrot and Mountain Carrots specialises in this. They only do a small amount of processed product now as China can do this more cheaply.

Approximately 2000 tonnes of packed product are sent to Japan. In the past 6000 – 8000 tonnes would have been exported to Japan.

The Free Trade Agreement with Thailand will decrease the tariff but China will still be able to supply Thailand with a cheaper product. There are now some high end opportunities in South East Asia and Mountain Carrots hope to take advantage of this opportunity.

Mountain Carrots rely on receiving a good product from the field. This helps reduce washing costs and improves packout (because they require export quality packout is 65 – 70%).

In the past they have sourced carrots from 7 – 8 contract growers but Mountain Carrots have become the grower and lease land so that they can grow the product they want. It is difficult to coordinate contract growers and receive equal quality from all growers. Some of the contract growers were growing for the domestic market and what is good enough for the domestic market does not meet export specifications.

Paddock selection is very important for Koyo carrots as they do not like high soil nitrogen levels. Japanese production techniques are mirrored. A contractor is used for harvesting.

Approximately 150 acres of Koyo carrots are grown and yield is 60 tonne/hectare. With Koyo carrots they are aiming for quality rather than high yields. Lower planting densities are used and starting with quality seed is critical.

One of their major challenges is hydrocooling and having large enough capacity. The temperature of the carrots coming from the field is 15 – 16°C and they have to be at 2°C for the sea voyage. If they only get the temperature to 5°C it is not cold enough

and the carrots get storage diseases. There is a one month period between washing and consumption. Mountain Carrots can cool 3 – 4 tonnes per hour.

Water is town supplied to the packhouse. Waste water used to be returned to the river but now goes through 2 to 3 settling ponds and exits them via a grassy overflow area.

Mountain Carrots do not have EUREPGAP but have NZ Quality Assurance with a few extra requirements.



Left: Mountain Carrots boxes.

Right: The group discussing carrot exports to Japan with Russell.

Sunrise Coast has 15 staff, with most of them in marketing. They are based in Gisborne. Sunrise Coast has been exporting for 25 years and other products exported include squash and retort vacuum packed sweet corn.

Key points

- New Zealand's export markets are under threat.
- Take advantage of a niche market.
- Need a very high quality product from the field for export.
- Getting the product to the correct temperature for transport is critical.

Snow Country Gardens

Contacts Bruce and Steph Rollinson

Bruce and Steph established Snow Country Gardens at Ohakune 5 years ago. Although they both come from farming backgrounds they had not owned a market garden before. They both studied agriculture at university. Steph had been working with Ravensdown Fertilisers (a large co-operative company) as a technical advisor and Bruce had been working in marketing and tourism.

Snow Country Gardens is historically a dairy farm with the previous farm owner establishing the market garden.

Bruce and Steph grow 30 acres of Brussels sprouts and 35 acres of parsnips. It is an intensive operation using manual labour.

There are 3 full time staff (including themselves) and 9 seasonal staff (February – September). Their staff returns each year and they have a good relationship with them. Staff find their own replacement when they are unable to work (most staff are from one family). They are paid an hourly rate when packing and field work is paid by contract.

Planting occurs from October to December. They grow an open pollinated parsnip as it is whiter but it does bruise easier. They are lifted gently out of the ground and are then picked up by hand off the ground. Hybrids which are creamy/brown are not as popular in the marketplace.

They are implementing integrated pest management. They do the scouting themselves as Steph has experience from her work at Ravensdown Fertilisers. Diamondback moth and aphids are their two biggest insect pests. Ringspot and *Alternaria* are their two main disease problems.

When they first started growing they had a lot of problems with downy mildew in the Brussels sprouts. They strongly advise to get advice from experts when you encounter a growing problem.

In Ohakune the market gardeners work with the pastoralists so that they can rotate their land. Bruce and Steph have 70 acres at Snow Country Gardens but they also lease land as they fit into other people's rotations. There is a 5 year cropping rotation (pasture followed by sprouts followed by a root crop).

Water for washing is from a bore in a spring fed creek. Waste water goes through four settling ponds. Water then drains through the soil back to the creek. Resource management is becoming more stringent.

There are 3 Brussels sprouts growers in Ohakune (who do not work together) and 5 parsnip growers (who work together).

Snow Country Gardens supplies the agent, Turners & Growers who onsell to the Foodstuffs supermarket group. Bruce and Steph only grow because they have a

market. Some growers speculate and this does not help market prices. Prices this year for Brussels sprouts have declined while they have increased for parsnips.

Bruce and Steph use plastic covers on their crates so that their produce is branded even though the produce will be repacked in the supermarket. When they started doing this their sales increased as buyers could easily recognise their product. For the top end supermarkets they supply parsnips in plastic bags. The bags have white stripes on them to enhance the whiteness of the parsnips.



Left: Brussels sprouts in crates but easily recognisable as being from Snow Country Gardens with the use of a plastic cover.

Right: Prepacked parsnips. Note the use of white stripes to enhance the colour of the parsnips.

When the Brussels sprouts season finishes in Ohakune (winter) the New Zealand market is supplied by South Australia. Snow Country Gardens are working closely with seed companies to get a late variety.

They believe in investing some profits off-farm as well as reinvesting on-farm. They want to keep well diversified.

Snow Country Gardens has NZ Quality Assurance and proudly promote this on their farm gate (see photo below). Residue testing is done by government (MAF).

Key messages

- Supplying quality produce and being reliable is the key to being sought after in the market place.
- Presentation and good marketing are very important.
- Adversity brings knowledge.
- Obtain advice from experts.
- Being passionate and professional yields results.
- Keep well diversified.
- Only grow what you have a market for.



Ron Frew Family Partnership

Contacts Ron and Peter Frew

Ron Frew has been farming at his current farm for 30 years. His family has been farming in the area for about 85 years. He currently grows with his son Peter and his son-in-law.

They grow 70 ha of carrots and 90 ha of potatoes. All of their packing is done at the Ohakune site but their properties are scattered over a range of 40 km. They also lease land at Wanganui, approximately 100 km away. They move machinery down to Wanganui when required. Livestock are part of their rotation.

Potatoes mature in April – May and they can be stored in the ground until October. It is similar for carrots. The quality of Nantes type carrots improve as they are stored in the ground. They operate for 10 months per year.

All of their potatoes are grown for the domestic market. They supply loose washed potatoes to the Foodstuffs supermarket group directly. Their carrots are grown for the domestic and export markets (Koyo type carrots to Japan). There is an oversupply of carrots on the domestic market this year.

A \$2 per crate premium is received for Koyo type carrots.

There is reliable summer rainfall at Ohakune and so do irrigation is not required. Settling ponds are used for waste water. Overflow goes into a swamp and then flows back to the waterway.

There are 8 – 9 full-time employees. Ron and Peter have NZ Quality Assurance.

Ohakune has been a tourist town for about 20 years. Land prices are now about \$7500 per acre but an acre can be worth up to \$10,000. A few years ago land prices were only about \$2500 per acre.

Ron and Peter strive to keep up with technology so as to increase efficiencies and decrease labour costs. They believe corporate farms will come under pressure in the future as they cannot afford the overheads.

Key messages

- Being able to lease land is a great opportunity. There is a lot of Maori land available.
- Carrots and potatoes can be left in the soil for 2 – 3 months as the soil acts as a freezer.
- Over supply on the domestic market is a major issue.
- Dealing with waste water is a challenge.
- Do not overbrush carrots and potatoes as this can reduce shelf life.
- Technology is always introducing efficiencies to the system.

Feilding

This area is known for its deep free draining soil and with a cool summer, it is one of the best areas in New Zealand for growing root crops.

Halford's Exotic Produce

Contact Clint Smythe

Halford's Exotic Produce specialises in the production of yams (105 acres) and ulluco (5 acres). They also wash potatoes sourced from Ohakune but when Ohakune is snowed in they use their own (8 acres).

Clint started growing in 1991. His father-in-law, Peter Halford established the business in the late 1950s.

Yams in New Zealand are the oxalis yam (*Oxalis tuberosa*) and are a small, waxy, crinkled tuber with a tangy, nutty flavour. Peter Halford can be credited with developing the yam in New Zealand into a high quality product (by saving his own seed and developing his own varieties) and making it an extremely popular vegetable. He not only focussed on improving the product but on consumer awareness and marketing as well.

Yams can be red, yellow and apricot in colour. Five growers in New Zealand produce red yams but the Halford's have the Plant Variety Rights on two varieties, 'Mellow Yellow' and 'Apricot Delight' as they were instrumental in breeding them.

Yams cannot be imported into Australia as they belong to the *Oxalis* family.

Yams are planted in November and mature in May. Yield is 3 – 5 tonnes per acre. They need a perfect temperature to tuberise and frosts are not welcome while tubers are forming. They firm up under frosts and the tops are frosted off. Yams are hand picked until June and then machine harvested until the end of October.



Left: Clint Smythe (left) showing the group yams in the field.

Right: Ulluco ('Earth Gems'), grown exclusively by the Halford's in New Zealand.

Yams have to be hand sorted as there is no reliable mechanical way of grading them on size. Clint hopes that within the next 5 years that it will be able to be done optically.

Weevils and grass grub (native to New Zealand) present some problems as they eat holes in the tubers. They are trialling a biological control for grass grub (pelletised fungus). They do not use fungicides. There are also some storage rot problems.

Yams are grown every second year and they rotate them with barley or annual ryegrass with some brassicas for fat lamb production.

Ulluco (*Ullucus tuberosus*) is from South America and was brought to New Zealand by Crop & Food Research. The Halford's read an article about ulluco and rang Crop & Food Research to find out more. They had also seen them in the USA. The Halford's now have the sole rights to produce and market ulluco under the name 'Earth Gems' in New Zealand. Earth Gems are supplied to cafes and restaurants in affluent areas.

The Halford's believe in protecting their intellectual property. They research their products and look closely at what they can own and protect (name, process, plant variety rights). They do not want to develop a product and then have someone else start producing it.

The Halford's have done a lot of work in developing their brand. In the 1060s Peter Halford approached the Women's Weekly editor at the time to print recipes for yams if he supplied her with a sample of yams.



Halford's Exotic Produce 500g packs of Earth Gems. The pack gives information about the product, how to prepare and storage information.

There is a common brand across all of their products – Halford's Exotic Produce. They work with a graphic designer and promote their website for recipe ideas (www.halfords.co.nz). They have six different statements on their labels, e.g. "Did you know.....with a low glycemic index (GI) of only 28, yams are an ideal food for diabetics."

The Halford's have used vented fresh bags for the first time this year and are now using 500 g prepacks. They could not promote prepacks when they did not have the technology to produce them but they now have a machine that can do prepacks and they are packing 500 boxes per week (containing 20 times 500 g packs). Yams are also packed in bulk 9 kg bags. Earth Gems are packed in 500 g prepacks.



Left: The Halford's new machine which can do 500 g yam prepacks.
Right: 9 kg bulk yams.

Their produce goes to the wholesalers, Turners & Growers and MG Marketing who supply both supermarket chains.

Key points

- Look for niche products.
- Protect your intellectual property.
- Develop your brand and provide the customer with information.

LEVIN

Levin is located on the fertile plains of the Horowhenua, an hour and a half north of Wellington. Environmentally the Horowhenua is an ideal place for growing, with plenty of rainfall and sunshine hours.

Woodhaven Gardens Co. Limited

Contact John Clarke

Woodhaven Gardens was established in December 1978 with the goal of having a family orientated business. The mission was to produce the best fresh produce possible. The Woodhaven Gardens mission has not changed 27 years later – meeting their customers' needs in terms of quality, variety and continuity is still their number one focus.

John was originally a seed representative but decided to start growing himself and he has not looked back. His son and daughter are also in the business and he encouraged them to join the industry.

Woodhaven Gardens produces 12 different products, ranging from spring onions to fennel, as well as other standard green lines such as lettuce, cabbage, and leeks. They attempt to value add their products and prepack spinach, parsley, radish, silverbeet and spring onions. It is John's view that this gives his customer a product that does not need to be reprocessed in store, there is less wastage, and ultimately a product that arrives in-store fresh and stays fresh on the retail shelf longer.

At Woodhaven Gardens they currently crop around 300 acres two and a half times per year. They try and plan plantings so that they have supply even in the more difficult winter months.



Left: Windbreaks are used extensively at Woodhaven Gardens.
Right: The Woodhaven Gardens truck with the motto, 'simply eats better'.

Woodhaven Gardens employs 50 full time staff, mostly Pacific Islanders, with a minor variation in this number over summer. John does not use harvest aids but he is looking at investing in this area now. He does not believe in investing until he gets the production side operating 100%.

Scouting is done by John and an agronomist. Confidor® is used to control lettuce aphid. John is not happy with the performance of resistant varieties.

Some irrigation is required. Frosts are a problem on land close to the coast. Windbreaks are used extensively on the property. Green crops are not really used. They do not use chicken manure as it is unavailable, and use fertiliser instead. John is interested in improving soil health and is looking into composting.

Woodhaven Gardens has NZ Quality Assurance.

Woodhaven Gardens takes orders daily and they harvest to order. Last orders are taken at 2 pm. They use a range of wholesalers. Crates are used (with a cardboard cover for branding) and they attract a one off hire fee. John said that he did not like the Australian system of time hire and having supermarkets control crates. In New Zealand crates are owned by the wholesalers. Some lettuce is sent to Auckland (McDonald's) for processing.



Cardboard covers are placed on crates at Woodhaven Gardens so that their brand can be easily identified in the market place.

John is involved in Vegfed Research & Development (R&D) Committees.

The team at Woodhaven Gardens have a passion and a love for what they do. They emphasise pride and care in their training and induction procedures and with this they hope to be still proudly serving the produce industry for generations to come.

Key points

- Have passion and pride in what you do. Strive to be the best you can.
- Provide a product to the supermarket that does not have to be repackaged in-store.
- A high quality product is the key to success.
- Lettuce aphid resistant lettuce varieties have underperformed.
- Improve the health of your soil.
- Get involved in your industry association and have a say in the direction of the industry.
- Brand your product.
- There is a one-off hire fee in New Zealand for crates.

Pescini's

Contact Chris Pescini

Chris Pescini's family have been farming for about 40 years and he grows 110 acres of onions and 270 acres of potatoes. The family own 400 acres in total and pasture is grown between crops.

Working on the farm are Chris and his brother, with their father and uncle helping at times. Chris will encourage his children to continue farming.

Pescini's supply A.S. Wilcox & Sons (40%). They also supply another packhouse, Growpack (40%) and 20% is processed or exported (this is coordinated by Growpack). Onions are exported to the Pacific Islands. They grow some red onions and Chris is happy with the way they are performing.

Their farm is located close to town but they have not had too much trouble with non-farming neighbours. They have one neighbour that they have to ring before they spray. Their local council encourages growers to work out issues directly with their neighbours.

Because Levin is cooler than Pukekohe they do not have as big a problem with thrips and they see this as an advantage they have. They have a new sprayer (\$270,000) and it has improved spray coverage and saved spray times.

There is a need to irrigate at times.

Chris joined a Vegfed Research & Development (R&D) Committee in 2004. He has found it excellent for learning and for meeting people and recommends others to get more involved with industry decision making.

Key points

- Get involved with industry decision making – it is a good way to gain knowledge and network.
- Try to work through issues with your neighbours.
- Adopt new spray technology to improve spray coverage and to save time.



Left: Chris Pescini's truck – he is a proud potato grower.
Right: The group looking at Chris's new spray rig.

OTAKI

Waitawa Farm

Contact Bruce Corbett

Bruce Corbett is primarily a hydroponic lettuce grower but he also grows lettuce, cauliflower and leeks in the field (60 acres). He was originally a tomato grower but moved to lettuce production as it was more profitable.

He likes to have total control of his crop so does his own seeding and propagation in order to get the plants he wants and is not introducing pests or diseases from a nursery.

For seeding Bruce uses medium grade vermiculite and lights to keep the plants growing evenly. Lettuce likes blue spectrum light and spends 4 – 5 weeks in propagation. Seedlings are placed on flood and drain tables.

Bruce has 80,000 hydroponic lettuces in the system at any one time (27 plants per m²). A sliding pipe system is used (from Belgium). Each pipe is 8.5 m long. When he started growing hydroponically this was new technology. The lettuce is grown under glass or plastic though glass is better for colour development in the red varieties of lettuce. In spring and autumn there is a 5 week rotation, in summer 4 weeks and in winter 6 weeks.



Left: Hydroponic lettuce production at Waitawa Farm.

Right: Bruce Corbett (standing at rear on left) discusses his field lettuce production with the group.

Lettuce aphid is not a problem. He applies Confidor® during propagation (at a lower rate for hydroponic lettuce than for field iceberg lettuce), as well as a fungicide. No spraying is done in the greenhouses. To control root rots he has moved away from using fungicides and is currently using Trichoderma.

Bruce dumps his water every 4 weeks due to sodium levels. Waste water goes to a pond which then overflows.

Field production of lettuce is 25 – 30 acres. Some of his lettuce goes to Leaderbrand for processing. He has his own brand ‘Le’fa lettuce’, and his fresh lettuce is always placed in sleeves (www.lefalettuce.co.nz).

Bruce prepacks leeks. Other growers dominate the leek market but he offers a different product by prepacking them.



Left: Leek production at Waitawa Farm.

Right: Leeks prepacked in plastic sleeves and placed in crates ready for transport.

He did not use private branding 8 – 9 years ago when he sent all his produce to the market bulk. Inferior quality produce was mixed with good quality produce in the marketplace. Private branding has helped sort out the industry, with those with high quality and reliability sought after in the marketplace.

Bruce has made a decision not to invest in high technology greenhouses (another reason he got out of tomatoes as he felt he needed to if he was to stay in the industry). He does not want to go into a large amount of debt because the value of his land is increasing and he does not see his family’s future being 100% on-farm. His son, who is 18, is currently working on the farm.

Key points

- Create your market advantage.
- Differentiate your product.
- Investigate alternatives to chemical control of pests and diseases.
- Look for new opportunities, e.g. different crops.

NEW ZEALAND PRODUCE PLUS CONFERENCE

New Zealand Horticulture Conference Week 2005 was held in Rotorua. It incorporated the NZ Fruitgrowers Federation Conference, Vegfed Conference and the Joint Industry Conference. The fruit growers and vegetable growers each have their own conferences and dinners but join together to discuss issues and listen to speakers that have relevance to both groups, as well as having a joint dinner.

The young Australian growers attended the Joint Industry and Vegfed Conferences as well as three conference dinners. The conference was very beneficial to the group in four main areas: learning about issues in New Zealand that will have implications for the Australian vegetable industry, learning about how committees work, hearing talks on doing business and developing your brand, and networking.

Key points from some of the talks and other information the young growers learnt about at the Produce Plus Conference follows.



Michael Nichols (L) and Trent De Paoli with New Zealand vegetable grower, Sidney Judd.

Vegfed

Vegfed is the New Zealand Vegetable and Potato Growers' Federation Inc. It is a trade organisation and is run by vegetable growers who represent the interests of all New Zealand vegetable growers.

Vegfed's objectives are to:

- Promote, encourage and enhance the production, distribution and consumption of New Zealand grown vegetables, both within New Zealand and in export markets.
- To foster and advance the interests of New Zealand growers.

Growers fund Vegfed through payment of compulsory levies collected at the first point of sale.

Vegfed has seven product sectors each run by an autonomous committee of growers who are elected to direct the sectors' activities: fresh vegetables, processed vegetables, potatoes, fresh tomatoes, asparagus, export squash and process tomatoes.

Sector representatives, along with the president, make up the Vegfed council. The council deals with issues of common concern and directs the effective and efficient use of Vegfed's resources.

Growers (3000 individual grower members) control Vegfed through direct voting. At the annual conference grower representatives, appointed by local grower associations, elect Vegfed's president and appoint growers to sit on Vegfed's sector committees.

Growers can keep up-to-date with Vegfed's activities by participating in district association activities, reading the "Commercial Grower" which is published and distributed free to every grower by Vegfed, or by visiting Vegfed's website – www.vegfed.co.nz

Some of the issues Vegfed is involved in include: marketing system development and restructure, transport, quarantine, quality control, taxation, resource management, research (both market and production), industrial relations, horticultural education and training, horticultural chemicals, export development/market access and promotion.

Horticulture New Zealand

Vegfed will be joining with NZ Fruitgrowers Federation and Berryfed to form Horticulture New Zealand in late 2005. They have been successful independent organizations advocating on behalf of growers on industry-wide issues in the past but felt they could be more successful as a joint organisation.

At the conference we were able to attend the pre-launch of Horticulture New Zealand and hear about the new organisation. Horticulture New Zealand will use its combined strength to continue to advocate on behalf of growers and address strategically, the industry wide issues.

Horticulture New Zealand has a foundation board of 11, including the CEO Peter Silcock and an Independent Chairman. The other positions are grower representatives.

Horticulture New Zealand will adopt a strategic approach covering:

- Industry leadership;
- Raising the industry profile;
- A positive business environment; and
- The right to grow and farm.

Promotion of vegetables in New Zealand

The vegetable industry, through Vegfed is involved in the promotion of vegetables in New Zealand. It does this through two avenues: the 5+ A Day program run by United Fresh and the vegetables.co.nz website.

5+ A Day

The 5+ A Day program was launched by United Fresh in New Zealand in 1994. The objective of the program is to encourage all New Zealanders to eat and enjoy fresh fruit and vegetables (5 or more servings a day).

New Zealand is one of 18 countries globally that has a nationwide 5+ A Day campaign and it has been very successful in New Zealand.

The logo is in supermarkets, on packaging, in magazines, in schools and early childhood centres, on buses, in doctor's surgeries, on TV and radio and in newspapers. As mentioned earlier, Pukekohe Stadium has the logo on the front gate. As a result New Zealanders are very aware of the 5+ A Day message. Research shows that 81% of New Zealanders are aware of the program. Awareness increases to 90% of those who have children 15 years or under.

Additionally consumption of fresh fruit and vegetables has increased. 46% of all New Zealanders are now eating 5 or more servings of fresh fruit and vegetables every day, compared with just 31% in 1995. In 2001 consumer research showed that 73% of children have fruit or vegetables in their lunch boxes every day (apples, bananas and carrots being the most popular).

The latest promotional material to be produced by 5+ A Day is promoting that fruit and vegetables of all colours be consumed. A logo '5+ A Day – The Colour Way' has been produced, as well as brochures and posters.

In November 2005 there is a *Nutritional Fruit and Vegetable Month*. Schools are the focus of this promotion and the nationwide event involves around 400,000 children.



The car driven by the 5+ A Day Manager to promotional events.

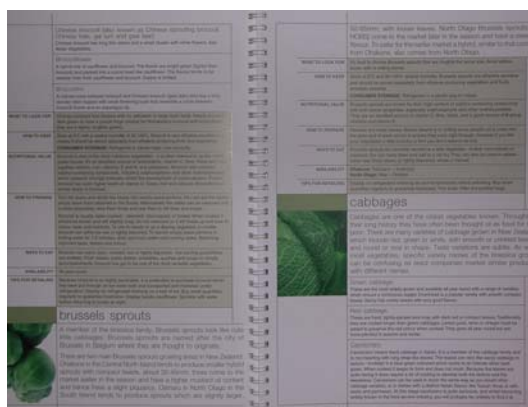
Vegetable growers in New Zealand can use the 5+ A Day logo on their packaging and trucks for example. 5+ A Day encourages businesses to make 5+ A Day part of their marketing plans.

More information about 5+ A Day is available at www.5aday.co.nz

vegetables.co.nz

vegetables.co.nz is an initiative of Vegfed. It is a website with ideas to help consumers eat and enjoy vegetables. It contains information about vegetables, nutrition, recipes and available resources.

The young growers were impressed by the manual, *Vegetables: a user's guide*. The aim of the 62 page manual (pictured below) is to raise awareness of purchasing, storage and preparation of the wide range of vegetables available. It has been written for people to use in their home, as well as by chefs, food writers and teachers.



Other resources available from vegetables.co.nz include posters and brochures about:

- Vegetable seasonal availability;
- Vegetables for your baby;
- Vegetables for children;
- How different potatoes cook; and
- Eat your colours every day.

The material is produced by Vegfed and the cost of printing is covered by partnerships with 5+ A Day and the Cancer Society.

United Fresh AGM – “Believing in you brand”

At the United Fresh AGM Chairman Ron Beecroft opened with the definition of “industry”, which he gave as “organised economic activity”. He asked attendees whether the New Zealand horticultural industries could truly call themselves this?

Key points from the following panel discussion were:

- To encourage young people into horticulture we (industry) need to present a positive vibe, not display a victim mentality.

- In New Zealand health claims can be displayed on “snake oil” products, but not on fruit and vegetables.
- Need to leverage funds from outside of industry for the 5+ A Day program.
- Products other than fruit and vegetables have stolen the high-ground of health. They all tell you they give you everything. Companies know they have to get on the health bandwagon. Many consumers do not see the reason to eat fruit and vegetables. Pictures of fruit and vegetables are seen on other products such as cereals so why is there a need to eat fresh fruit and vegetables?
- Need to differentiate your product because there are so many products out there.
- There should be no substitute for fresh fruit and vegetables.
- Consumers buy with eyes at first, but for taste second time around.
- We need to keep an eye on online shopping. When consumers can save their list and just resend again in the future they will not necessarily try new products.
- Innovation is required to sell fruit and vegetables. Other products have packaging which screams out at the consumer.
- Who is meant to champion fruit and vegetables? The whole supply chain? The retailer? Growers? Who’s brand is it?
- New Zealand is 10th greatest nation brand, Australia is number 1.
- Where will the fruit and vegetable industries be in 5 years if they do not start spending on their brands?
- Consumers have to pick your brand ahead of someone else’s. How do you make yours more attractive and stand out?
- The consumer is confused when they hear that organic fruit and vegetables are better for you.
- Not all consumers respond to being told that fruit and vegetables are good for you. That is what their mother’s told them. Need to focus on taste and convenience.

How creativity can help build your business

Business journalist Vincent Heeringa spoke on how creativity can help build your business. He was joined by Jeremy Moon (CEO Icebreaker) and Bruce Campbell (GM Science Operations at HortResearch) for a panel discussion.

- The most important word in marketing is difference as difference creates distance.
- Creativity and innovation give rise to entrepreneurship. You can innovate by repositioning a category by brand leadership, cross categories by brand extensions (e.g. chocolate bar into a drink), reinvent categories or create new categories.
- NZ grown is a point of differentiation but how long can we sustain the clean and green image?
- Customers have to have an affinity with your values.
- Reinvent and create new categories.
- In 2014 the global consumer will focus on lifestyle, convenience, wellbeing and social responsibility. In science we have to have the future consumer in mind.

- Consumer perceptions of quality – taste, texture, appearance, memory and novelty.

Engage your brand – Doing good is good for business

”Stand for something, or stand for nothing” says Jude Manyon of the Robin Hood Foundation, asking conference delegates, “What does your business stand for?”

- Doing good is good for business (e.g. Vodafone helping the deaf and blind).
- In New Zealand 94% of people think it is good for companies to support charities and 17% would be likely to pay more for a product that stands for something.
- The number one reason given for buying fruit and vegetables is health but many companies say they stand for health (e.g. Sanitarium). Big industries are investing in our (the fruit and vegetable industries) area.
- Your competition can copy what you do but they cannot steal what you stand for.
- Fighting obesity and poverty is something that the fruit and vegetable industries could get behind.
- Big companies spend millions on advertising. We need to pool resources with retailers.
- The fruit and vegetable industries have done well with 5+ A Day with very little money compared with what big companies spend on advertising. No other company can get into schools the way 5+ A Day has. We own the moral highway on health and should claim it.

Health Claims & Produce

Health claims and issues for the fruit and vegetable industries were discussed by Anne Perera (Crop & Food Research), Jenny Reid (New Zealand Food Safety Authority) and Jeni Pearce (Nutritionist).

Health claims are statements that are not mandatory by Food Standards (FSANZ). A well managed program is needed for health claims. There is a difference between general level claims (e.g. it is well known that eating fruit and vegetables can prevent deficiency diseases) and high level claims (e.g. reducing the risk of serious disease). An increase in regulation is required if the degree of promise is increased. Only one high level claim is currently allowed and that is for folate. However this health claim is not always good for business – young men see that a product is high in folate and think it is only for pregnant women. Some consumers need the health claim to refer to them for them to purchase the product.

It can be very difficult to regulate health claims that are on products offered over the internet.

Vegetables are the ultimate health food but we should not turn vegetables into a medicine. Not everything should be linked to disease but to slow release of carbohydrates and sustained energy for example.

TVNZ is looking at how to promote health messages to children. Perhaps this is an opportunity for Vegfed to form a partnership?

Parents underexpose children to the challenges of learning to accept new things (flavours). Children take 8-10 attempts to accept a new flavour but parents usually quit within 1-2 attempts.

The speakers agreed that Vegfed does a fabulous job in providing information to food writers and nutritionist (they support the food writer's conference).

Turning entrepreneurial spirit into action

This session was facilitated by Jo Sommerville.

- Distance yourself from your competitors.
- Identify niche markets.
- Ensure quality.
- We ask questions when challenges arise and typically not beforehand. Need to be visionary and be able to foresee problems and hurdles which could have a major impact on your business.
- Be prepared to take action ahead of others so that you stay ahead of your competitors.
- For the supply chain to be successful, relationships need to be based on trust.
- There is value in having a diversity of views and skills in your business. Staff should be encouraged to question and challenge current practices. Too much agreement can be negative for the growth of your business.
- Many New Zealand growers are negative towards their industry. They will continue to struggle if they do not change their attitudes. Many are scared of change but need to be innovative to survive and move forward.
- An innovation must be functional and have benefits, whilst not having a detrimental effect on anyone.

Enter the Dragon: China's fruit and vegetable industries

Patrick Vizzone (Rabobank Hong Kong) gave an excellent talk on China and its place in the world market.

He started off by pointing out that China is not a new economic superpower taking over, but instead it is an emerging dominant force. It is Asian produce chains that are contributing to the US Balance of Trade Deficit, not strictly Chinese produce chains.

In 25 years the USA and the EU should have 49% of global GDP. China should be the 3rd largest economy with 10% of global GDP, which is far behind the USA and an expanding EU.

China is the world's largest producer of fruit and vegetables but it is very inefficient. Yields are low compared to world standards and postharvest losses are at about 25-30%.

Things are changing however. Leapfrogging is occurring where antiquated systems get changed to high technology systems in one go. Traceability is becoming popular.

Vegetable consumption is falling along with grains (traditional Chinese foods). Consumption of fruit, meat and dairy products is increasing. 80% of vegetables are consumed in the raw form compared to 20% in the west. This value is decreasing with value adding.

Food retail is becoming more organised and consolidated in China. Biggest margin is at the retail end. The smallest margin is at the beginning of the value chain.

China is labour rich but resource poor. It has a US\$7billion deficit in food and agribusiness but a US\$4billion trade surplus in fruit and vegetables. China has 1.5% of global imports by value (very closed) but 6% of global exports by value (representing only 1.5% of China's production). China is increasing its share of the throat but not of the wallet (e.g. compare Chinese fruit to fruit from NZ in Japan).

Patrick said to expect more competition in markets where China currently has low penetration (e.g. Canada). He also said that New Zealand should be more concerned about Chile and South Africa though.

To compete with China he suggested:

- Leverage counter-seasonality;
- Do not fight them head-on (e.g. do not compete with China in Fuji apples);
- Branding; and
- Soft attributes (e.g. traceability and quality assurance).

A free trade agreement between NZ and China would provide NZ with another 25-50 million consumers (would need to target the DINKs). However a comprehensive FTA looks unlikely at this point. Penetrating the Chinese market would be challenging but the Chinese will buy imported fruit and vegetables. For example the consumption of imported cherries and raisins has increased substantially in recent years.

The Story of Contiki

The best received talk of the conference was probably by John Anderson, the Founder of Contiki. His key points were:

- Your product does not have to be the cheapest but has to be the best value.
- Be innovative, others may copy you so you have to make your product unique.
- Risk gains, but also falls and always have a fall-back.
- You need a good team.
- Decide your target market.
- Do not get complacent as your competitors will creep up on you.
- Deliver more than you promise.
- Do a lot of consumer research and find out everything about your competitors so that you can capitalise on their weaknesses.
- Rely heavily on word of mouth.

- Never lose touch with your staff.
- Train your staff to do the job you want them to do and give them the resources to do it.
- It is a mistake getting involved in things outside of your core business.

Opening of the Vegfed Conference

The Vegfed day of the Horticulture Conference was opened by the Minister for Rural Affairs, the Hon Damien O'Connor. Vegfed President Brian Gargiulo also gave a speech. Key points from their presentations included:

- International trade and high tariffs are not fair – the WTO is important to New Zealand.
- Non-tariff trade is becoming more important with the associated issues of quality, residues, phytosanitary.
- The high quality and safety of New Zealand produce is the key to New Zealand's export industry. New Zealand also has a good climate, good systems and access to good scientists.
- Sustainable use of resources is very important.
- Seasonal labour shortages in horticulture. Need to look at imported labour.
- The carbon tax (as a result of New Zealand signing the Kyoto Protocol) will have a direct impact on many growers. However New Zealand is committed to decreasing CO₂ emissions and to not be part of the protocol would be detrimental to New Zealand in the long term. Brian replied to this by saying that New Zealand should not have signed the Kyoto Protocol because the world market is not fair.
- New Zealand growers need to learn how to work better with their Government so that Government supports the industry. Farmers in South Korea, USA, Australia, France and Japan know how to use their political system to get the results they want (which can hurt New Zealand farmers).
- In 2003/04 New Zealand exported approximately \$440 million worth of vegetables (onions, potatoes, frozen peas, squash, frozen sweet corn, frozen beans, capsicums, asparagus, carrots and tomatoes). However to do this it costed the industry \$35 million in tariffs.
- Tariffs cost kiwi fruit growers \$32,000 each per year.
- Dropping trade barriers is very important for New Zealand as export is so important.
- Overproduction is a problem.

Nutrient Management in the Future

Anna Sinclair (A.S. Wilcox and Sons Ltd) and Peter Buckingham (Balance Agrinutrients Ltd) gave an interesting talk on nutrient management and why growers need to be concerned about it now.

In New Zealand, chemical fertiliser use increased by 54% from 1994 and 2002. In the same time the use of urea increased by 160%.

There is the perception that growers are having a negative impact on the downstream environment due to leaching and runoff.

In Germany and the United Kingdom there is already legislation concerning the amount of nitrogen applied to the soil. This is starting to happen in New Zealand.

In the Waikato region nutrient management plans are required if more than 60 kg N/ha/year is being applied. This is so nitrogen applications can be monitored and to minimise the effect on the environment.

Reasons for the introduction of this legislation are:

- Elevated nitrate levels in the ground water; and
- Elevated nitrate levels in waterways including streams, rivers and lakes.

Both have an effect on human health and the health of the environment.

Within the next few years there is going to be increasing regulatory pressure on growers in New Zealand, possibly including keeping compulsory records of fertiliser use and having to get permission to use fertilisers.

The industry and researchers need to investigate methods of inhibiting nitrification, slow release fertilisers (granule coatings) and the possibility of plant DNA modifications so that fertiliser is not required.

A bright future would have growers using a number of tools for nutrient management, including:

- Cover crops;
- Buffer zones;
- Looking at fertiliser type, timing and placement;
- Crop rotations;
- Meteorological data;
- Allowing for soil type and slope;
- Taking into consideration variety effects and planting dates; and
- Doing nutrient budgets and using modelling tools.

It is up to the vegetable industry to decide whether it wants regulation or industry direction and rules or self-monitoring.

Other talks

Key points from some of the other talks included:

- Grower numbers are in a steady decline.
- The carbon tax is going to have a major impact on the New Zealand greenhouse industry.
- Since the introduction of a carbon tax in the United Kingdom the industry has become more energy efficient. There has been about a 36% drop in energy use in the last 10 years.
- The tomato industry has been using articles in magazines to their advantage, as well as mailing information to schools and health professionals and producing a booklet on tomatoes.

- For tomatoes the focus is taste and increasing consumption.
- One of the fastest growing small businesses in the USA is the personal chef (comes once per week to a household to prepare meals).
- Due to childhood obesity many parents are now expected to outlive their children for the first time in history.
- New Zealand has to think of value before volume as it is at the top end of the market.
- Levy collection has gone down for the first time this year, reflecting the decline in the export market.
- Compliance costs for small businesses are a big issue. Compliance costs for large businesses (> 100 employees) in New Zealand are \$480/employee/year and \$2800/employee/year for small businesses (< 5 employees). It is very hard for small businesses to keep up with changes in the law even though they do not seek to break the law.
- Australia benefits more from the Australia-New Zealand FTA than New Zealand does. In 2004 the value of horticultural products going from New Zealand to Australia was \$174.5 million and from Australia to New Zealand, \$235.8 million.
- Biosecurity has to be based on good science.
- Free trade benefits everyone. New Zealand's GDP would grow by more than 4% per year if half the world's trade barriers were removed.
- Australian's are more patriotic about buying home-grown produce.
- There are 7 drivers of productivity – leadership and management capability, productive workplace culture, innovation and technology, skills, organising work, networking and collaboration, and measuring what matters.
- “Delivering a positive contribution to public health has become an everyday strategic necessity for any company that wants to thrive in the future” (New Nutrition Business, 2005).
- Intrinsic health – all foods are fast becoming functional.
- The kids nutrition crisis will be on all company agendas.

SUMMARY

- The New Zealand growers that the group met with were surprised that the Australian vegetable industry is so divided and growers find it difficult to work together. They were also surprised that each state had different chemical and other legislation but that all growers had to operate in a free local market.
- The New Zealand Chinese Growers Federation did not know that there is an Australian Chinese Growers Association (ACGA). They expressed interest in having a joint conference. Government assistance for LOTE (language other than English) groups in New Zealand is not as great as in Australia. They do not receive assistance for communication officers for example but can apply for funding for environmental projects (for example), as other grower groups can. Unlike in Australia (where members of the ACGA do not join state based grower organisations that are members of AUSVEG) the members of the New Zealand Chinese Growers Federation are all members of Vegfed.
- Vegfed works at both a research and development (R&D) and agripolitical level and both types of activities, plus promotion is funded by a compulsory levy. The growers in New Zealand feel it is important that Vegfed has several roles and could not believe that there were agripolitical associations in each state of Australia (and that they relied on voluntary membership in the majority of cases). The work of Vegfed benefits all growers so all need to contribute to the running of Vegfed. Although growers compete in the marketplace they know that they need to work together on generic issues.
- To get a levy up in New Zealand a ‘yes’ vote has to cover 50% of the value of production plus 50% of the number of growers. The levy is compulsory for only 5 yrs. Vegfed has to deliver results for the levy to continue receiving support.
- Local grower associations in New Zealand are becoming less active, especially since the decline of the Central Market. The Pukekohe Vegetable Growers Association (PVGA) is an exception. The PVGA remains a strong association. This is mainly because of the personalities involved and because Pukekohe is located on the outskirts of Auckland, with increasing friction between commercial growers and “lifestylers”. Urban sprawl and “lifestylers” are making it more difficult for commercial growers. The PVGA also realises that it is important to share jobs around and spread skills. They change their President every 2 years.
- New Zealander’s see Australians as being much more patriotic than themselves. They believe that Australians are much better at standing up for themselves.
- In New Zealand verbal contracts only exist between growers and supermarkets. Growers are only as good as their last delivery. Developing a good relationship is seen as critical by both growers and supermarkets.

- Supermarkets in New Zealand want to source a product 52 weeks per year from the same supplier. Many of the larger growers who supply the supermarkets source product from other growers to maintain a continuous supply. The climate enables 52 week supply capacity throughout the North Island. Also greenhouses enable year round supply.
- There is a proliferation of farmers' markets in New Zealand – farms of up to about 20 acres are involved. Growers are concerned about the accountability of growers that only sell through farmers' markets or direct to restaurants. There are the issues of quality assurance and the black (cash) market as all growers benefit from the activities of Vegfed so all should contribute.
- Growers need to diversify (although some growers believe in sticking to what they know). Things can change overnight, e.g. the introduction of a carbon tax, so growers need to be informed and ready to cope with changes. Diversification helps spread risk. With several family members working on one farm it is easy to diversify and each member can specialise, e.g. Balle Bros.
- Many growers had no succession plan and were encouraging their children to work off-farm. The Australian young growers found this surprising, along with the general expression of doom and gloom expressed by some growers. However, other growers were very positive, saying that you need to be innovative to survive.
- Production per acre, not total volume is the key to success – return on investment.
- There is only one QA (quality assurance) program in New Zealand versus many programs in Australia. It was seen as a strength that New Zealand only has one system.
- Growers swap ground with other growers to assist with crop rotation. By putting in a crop rotation the following crop yield is increased.
- Benchmarking and understanding your real growing costs is very important. The PVGA educated their members about real growing costs as some growers were underestimating their costs and therefore selling at too low a price, which in turn affected other growers.
- There is a shortage of labour in New Zealand horticulture, as in Australia. However there is a cheaper labour component in New Zealand by up to 40%. There is consideration of using labour hire companies to source labour from other countries on working visa's.
- Many small growers in New Zealand proved that they do not need to be big in scale to achieve business success. They focussed on high quality, attention to detail and building their brand.

- Private (grower) branding is popular in New Zealand. It is used by growers to create their position in the marketplace.
- Declining export markets (onions and carrots in particular) have significantly affected growers. New Zealand growers rely on the export market as the domestic market in New Zealand is very small (population is only 4 million).
- There is a great promotional campaign in New Zealand. There is the 5+ A Day program as well as Vegfed's vegetables.co.nz program. Both programs produce resources for schools. It is important to reach young children.
- The taste of vegetables should be promoted. Some growers felt that the 5+ A Day program had focussed too much on promoting the nutritional benefits of vegetables.
- The New Zealand domestic market is dominated by two supermarket chains.
- Tariffs are hurting the New Zealand export market.
- The carbon tax is a subject of major debate in New Zealand at present. It will severely impact on the economic viability of some businesses. However some say that it will help growers to become more efficient (do they have room to move?). Some growers will just grow more to cover the tax but this will exacerbate overproduction. The carbon tax could be turned into a competitive advantage, especially for those not burning coal.
- Resource management, nutrient management and disposal of waste water are becoming major issues in New Zealand.
- As well as keeping chemical diaries growers in some regions will have to start keeping fertiliser diaries (nutrient management plans).
- Packing in the paddock can save money. For example by packing Kabocha (export squash) for Japan in the paddock \$0.08/kg can be saved.
- Some growers are using the equity in their land to finance the growing of their crops. This is not sustainable.
- Successful growers are the ones that are innovative and change their businesses to suit the market. They do not complain but always look to what they can do to be successful in the future and implement change on their farms.

RECOMMENDATIONS

- In Australia we need to work together at the agripolitical level much more than we do now. We do have a problem due to state boundaries. Governments will not talk to lots of different associations so we need to work together within states more as well.
- Positions of responsibility within growers associations and on R&D committees need to be rotated. Many growers do not volunteer for positions because they are worried that they will get stuck in a position and receive little assistance from other growers. Rotation prevents a group becoming reliant on one person and enhances the skill base as well.
- Growers need to attend industry conferences and it is seen as beneficial to the industry if AUSVEG continues to support the attendance of young growers at these types of events. The main benefits of attending a conference are networking, diversity of presentations, visiting the trade display and thinking about the industry as a whole. It helps growers realise that they are part of an industry, not a farm operating in isolation. For future conferences in Australia AUSVEG could consider awarding some scholarships to young growers to assist with the cost of attending.
- Delegations of Australian growers need to attend overseas conferences. It allows them to hear about issues affecting the industries of other countries now and in the future. Will these issues affect Australia? It can serve as an early warning for us.
- Australia should work with New Zealand in the area of research and development but not for marketing. There should not be joint trade ventures.
- Growers need to join the Enviroveg program. Fertiliser budgets (and applying for a permit to apply fertiliser) will come to Australia. Growers need to be proactive, not reactive and self-regulation is better than legislation. There needs to be a training course on the application of fertiliser.
- There should only be one quality assurance program in Australia and everyone needs to be certified.
- The Australian vegetable industry needs to develop some marketing tools as has been done in New Zealand. Consumer awareness is much better in New Zealand as a result. A guide such as 'Vegetables: a users's guide' needs to be developed by industry. Other funds can be used for printing and distribution, e.g. the Cancer Society helps fund this in New Zealand.
- A program to educate Australian growers about their real costs of production and to highlight the benefits of benchmarking is needed.

- The Australian vegetable industry needs to get involved in promotion. If we leave promotion wholly to the supermarkets then they are controlling how the consumer perceives our product. We need to unite as an industry to fund the cost of promotion. Individual companies cannot fund the costs of promotion alone.
- Australian vegetable growers should be encouraged to obtain a market for their product before they plant.

TOUR PARTICIPANT COMMENTS

“The tour to New Zealand was a fantastic opportunity. The tour not only gave me more knowledge, but also got me thinking about the way other people farm. I have gained experience and ideas to move ahead and stay competitive. I would highly recommend this tour to everybody.” Michael Nichols

“It has been a great and inspiring tour. We have learnt about New Zealand’s fruit and vegetable industries, information to help us improve our growing and met new people. Overall it’s an excellent idea for young growers like us because it encourages young people in the fruit and vegetable industries.” Hien Le

“The best things were the contacts made and the tips you get from talking with them. I have got inspiration out of the tour. I want to keep growing and expand my business. I would recommend the tour to others.” Leon Canzirri

“I have enjoyed the trip very much and have learnt a great deal that will help my business in the future. Best of all was being accompanied by like-minded people.” Kevin Pham

“The Young Vegetable Growers Tour of New Zealand was inspiring and thought provoking. A must for any young grower looking to further develop a professional career in horticulture. The open and frank nature of many growers is to be commended. As international horticultural competition increases I believe traditional countries which once dominated the horticultural sector will have to band together against the emerging giants. Therefore I consider it very important tours such as this continue to aid information flow across the Tasman and inspire the next generation of farm managers and horticulture leaders to grow our industry.” Stuart Grigg

“A fantastic opportunity for any young person. Sometimes we focus too much on the day to day and need to seize opportunities like this to see how things are done in other countries.” Trent De Paoli

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