

## **The Avocado Industry in New Zealand**

**John White**

*CAS Director-at-Large for New Zealand*

### **Introduction**

The New Zealand avocado industry is small by all standards but vibrant and growing. Its early years centred on the NZ domestic market but with the growth that was started in the late 1970's export has increasingly become the focus of growers and of the industry. It is New Zealand's third largest export fresh fruit crop but is well behind both Kiwifruit and Apples in scale and export receipts. It will remain relatively small on a world scale but is likely to be significant supplier to the US market in the future.

The New Zealand environment is extremely well suited to growing Hass. Temperatures are moderate in the growing areas. Regular rainfall in the growing regions means irrigation is a management tool rather than a necessity. The rainfall does create some challenges to the maintenance of fruit quality.

The industry is well organised, with aspects of both strong competitive pressures and a high level of co-operation among participants that encourages high standards and orderly, well planned marketing. Marketing of the crop has changed dramatically over the last 20 years as the crop grown.

### **Geography and Climate**

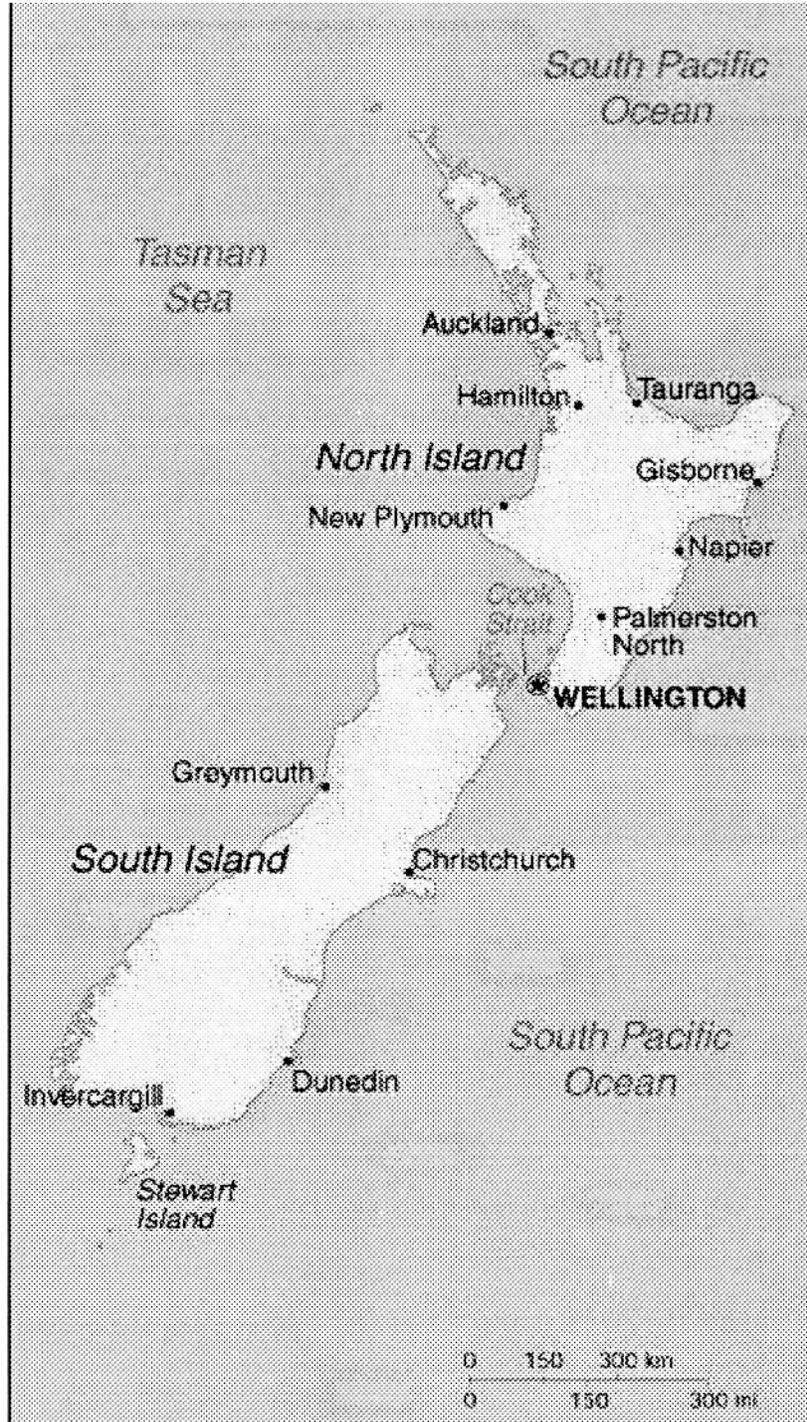
New Zealand avocado growing regions are located between 34° and 38° South (think Los Angeles to San Francisco in California)

However as an island in the Pacific the New Zealand climate is not continental and is heavily influenced by the ocean. As well New Zealand is a thin country and nearly all avocados grown would be within 15 miles of the coast. This means our temperatures are not extreme with winter temperatures rarely falling below freezing and summer temperatures seldom over 85 F. Rainfall is year round with more in winter than summer and around 45-55 inches per year in most growing regions.

Avocados are grown on the free draining soils available. These vary from the sands of the Far North to the deep volcanic ash soils of the Bay of Plenty. All these soils have a significant organic component (the sands less so), are heavily leached, have a naturally low fertility but do respond well to fertiliser applications.

Avocados are mainly grown in the top half of the North Island from Gisborne north. The main growing regions are in the Western Bay of Plenty (west of Tauranga), Whangarei (100 miles north of Auckland), and around Kaiaua in the Far North.

The cool climate does mean that the Hass crop is on the tree along period before reaching maturity and maintains fruit quality on the tree for an extended period. Typically fruit can reach 24% dry matter in 10-11 months from flowering but a significant volume is not harvested until 14 months from fruit set with the last the crop being harvested for the local market up to 20 months from fruit set.





*Harvest in January showing both old fruit and new fruit present on tree. (Photo courtesy of NZAIC)*

## **History**

The New Zealand industry has really had three main phases of development so far. The first period from the 1930's to late 1970's was focused on growing an exotic crop for the domestic market. There was significant growth through the 1970's mid 1990's and the development of export to Australia. The development phase we are in now is strongly export focused with grower returns from Australia, United States and domestically encouraging further planting.

### **1920 1975**

The person recognised as being the "Father" of the New Zealand avocado industry is Len Grey of Gisborne. The Grey family orchard received some seed distributed by the New Zealand Department of Agriculture in 1926 and were producing fruit in 1935. The first fruit were marketed were in 1939 in Auckland and the interest from those fruit led to a the start of commercial production. In 1940 he imported some grafted trees from California and developed relationships with both Dr R Hodgson and Dr A Schroeder of University of California Los Angeles (UCLA). By 1960 he had around 1000 trees.

In parallel to this Peter Kent, a Tauranga nurseryman, established contacts with UCLA and imported grafted trees of Hass, Fuerte and many other varieties. These became the sources for much of the budwood for later plantings of avocados in the Bay of Plenty and elsewhere.

This was a time when a few dedicated individuals developed a domestic avocado

industry using imported plant material and contacts around the world to further their knowledge. They then applied their own horticultural expertise to adapt the offshore practise to New Zealand conditions. The industry owes a lot to these pioneers.

## **1975 -1995**

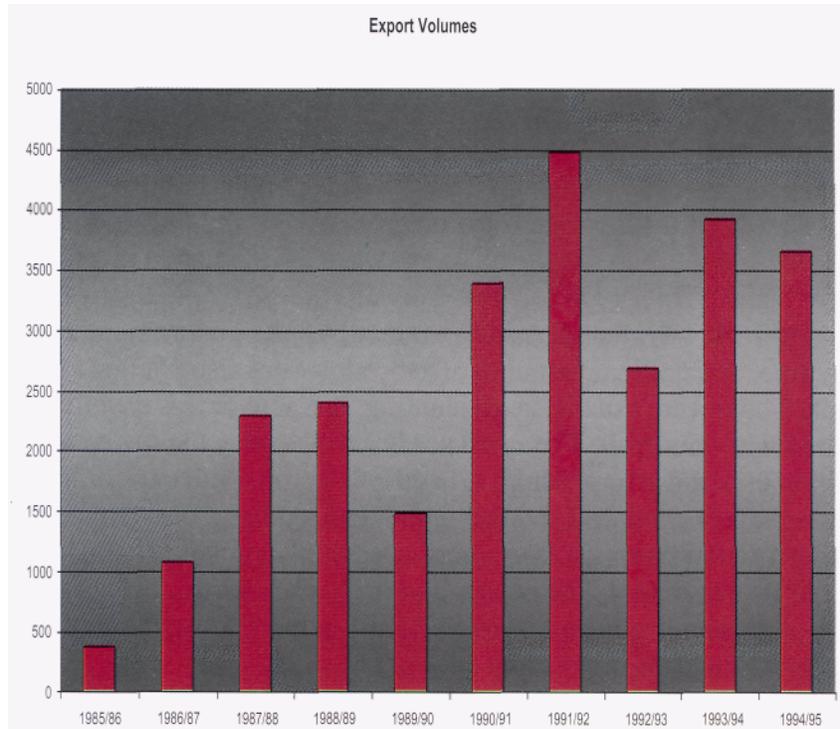
The late 1970's and early 1980's saw a boom in horticulture in New Zealand. Most of this was centred around the development of kiwifruit in the Bay of Plenty. In excess of 20,000 acres of kiwifruit were planted from 1978 to 1984. This was driven by the strong export values for kiwifruit and some tax incentives the government gave at the time. A significant number of avocados were also planted at same time. These were usually small planting, one acre or less usually associated with kiwifruit. The kiwifruit boom also saw the investment in packhouses and infrastructure to handle that crop. Fruit exporting businesses were established and were looking for other crops to handle. At this time a few commercial scale, avocado only, orchards planted both in the Bay of Plenty, Whangarei and in the Far North.

Agronomic advice was available from the "Department of Agriculture". Yields were low and strongly biennial.

Many of the small planting were mixed varieties with predominance of Hass. Earlier planting in this period were still focused on the domestic market which was exceptionally strong at times. Timing of marketing was important as prices were quite seasonal. The larger planting in the Far North were planned to take advantage of this because of their earlier maturity. As volumes grew the New Zealand domestic market became lower priced during the peak of the season. This made export to Australia an attractive option. Australian Hass were practically unavailable November through to February. Some large planting of Hass were made in the late 1980's with an eye towards export.

## **Export Marketing**

Volumes exported in the early 1980s were low and returns were erratic. Australia was "the market" with over 95% of our exports going there. Most export sales in this period were to on consignment to wholesalers in the Sydney terminal markets with overflow into the Brisbane and Melbourne markets.



The quality of the marketing early in this period was variable with a host of sellers and buyers, poor coordination, erratic volumes and pricing. Wholesale volumes and pricing were characterised by peaks and troughs and grower returns reflected that. Often quality in the market and a consumer level was erratic as well due to poor understanding of the best handling practises and poor control of the logistical chain through to retail. Total industry volumes for export were growing and there were concerns as to how the market would handle the increasing volume. Years of high volume growth were disastrous price wise!

Towards the end of this period, in 1994, saw the start of well planned and executed preripened direct to retail sales by New Zealand exporters to the major retail chains in Australia. This initiative was led by *Team Avocado®*. The advent of preripened programmed sales, supported by investment by New Zealand marketers and growers saw huge expansion within the market.

The direct to retail was based on controlled and integrated quality, marketing and logistical system. Many key factors were brought together.

1. Volumes were programed over the selling season. This required discipline from the growers and packers in their harvest schedules. It required accurate and reliable crop estimation. It required sound logistical planning to have enough fruit available when going into a promotional week.
2. Quality preripened fruit were made available to customers. This took considerable investment from the marketer in educating retailers in handling a delicate, time sensitive product. Initially this was accompanied by a branding program to aid repeat sales. Investment in research and quality systems also occurred at this time

and significant changes to shipping and ripening conditions gave much better fruit quality to the final customer.

3. Promotional investments accompanied the improved quality systems. Support of retailer advertising programs, programmed retail discounting and direct promotional support were all used. Supermarket promotion was coordinated with harvest, shipping and ripening volumes to provide the extra fruit needed at the times. Often promotion was so successful over this period as to put the rest of the logistical harvest, pack, ship, ripen process under considerable pressure. Fruit was often air freighted to Australia to keep up with demand and further lift fruit quality.
4. Contractual commercial relationships were formed and strengthened. Contractual commitments were made to retailers for supply and this flowed all the way back to the a greater level of commitment from growers to the exporters. More growers took a long term view of their place in the market and were willing to commit to a long term development. More and more fruit was sold through monthly or whole season pools where price received were averaged over a long period. This required growers and packers trust their marketers as prices paid were unknown until after the season has finished.



*Early supermarket display in Australia  
(Photo courtesy of Team Avocado)*

### **Industry Coordination**

Increased industry level information flows started in the early 1990's. Prior to that there were a couple of attempts to commercially coordinate all sales (one operator hoping to take all the business) which failed to get the critical mass required to work. Note the Kiwifruit industry opted for Single Desk selling with the establishment of the Kiwifruit marketing Board after some very bad years in the mid to late 1980's

In 1987 the New Zealand avocado Export council was established as a Recognised Product Group under the Horticultural Export Authority Act. The purpose of this legislation is to provide a framework for the export marketing of horticultural crops. It

provides for the light handed regulatory environment for export to occur. Exporters must be licensed by HEA and agree to abide by industry developed Export Marketing Strategy (EMS).

The number of exporters is not restricted directly but there are standards which they have to meet to gain a license to export avocados. Enforceable industry wide grade standards were established together with a funding mechanism (a charge on each tray exported) to cover the costs of research, coordination and compliance. In time national crop estimation was commenced. The Avocado Export Council (now the Avocado Industry Council) was made up of both exporter and grower representatives. The growers were appointed by the Avocado Promotion Association (now the Avocado Growers Association) which already collected a voluntary levy on domestic sales and organised promotion in the New Zealand market. All licensed exporters were part of the Avocado Exporters Committee that appointed two representatives to the AEC. The Council was responsible for the development and implementation of the Export Marketing Strategy. It gave the industry a forum where both grower and exporters had input into how the industry was run. It ensured common goals, standards and opened information flows. It also got the exporters together face to face to discuss their issues and helped them to work together to common aims.

The combination of competitive marketing skills by commercial operators, industry cooperation and common understanding of direction served the New Zealand grower well by the end of this period with very consistent solid returns being shown from Australia and growth in the domestic market. **The grower response -plant more trees!**

The better returns were also encouraging growers to look harder at maximising yields and long held practises in plant nutrition and management were starting to be looked at.

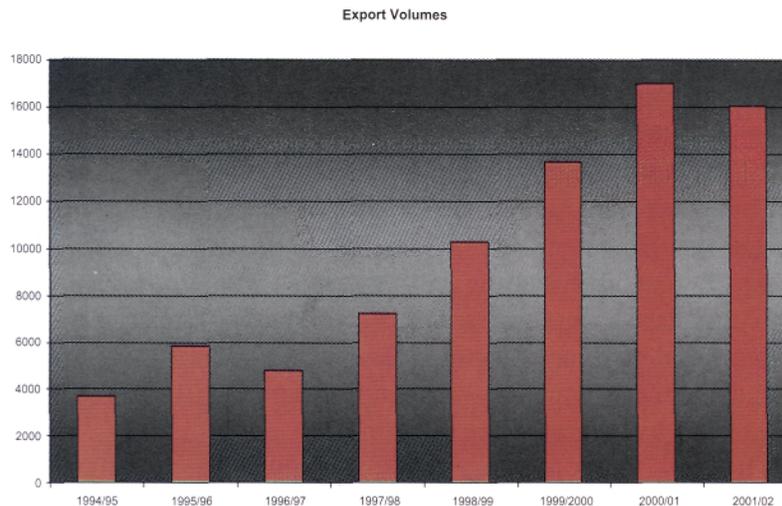
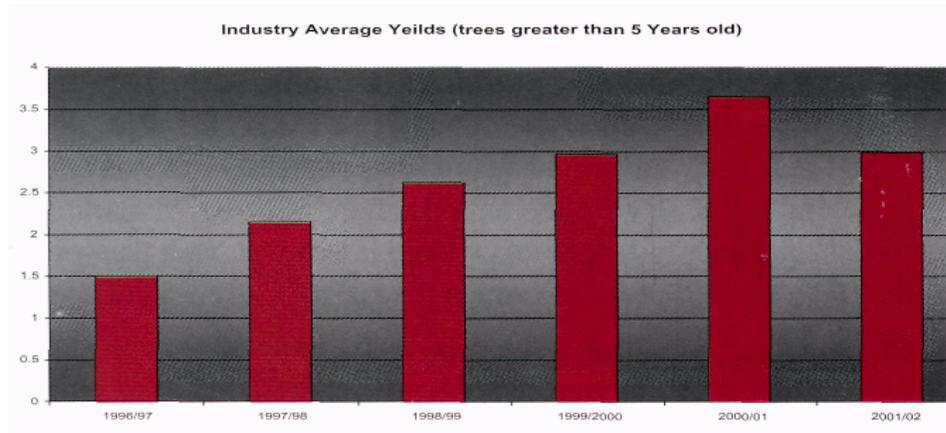
### **1995-now**

From the mid 1990's through to the present the avocado industry in New Zealand has seen strong consistent growth, with ever increasing volumes, increasing numbers of growers entering the industry and very significant new plantings. There were initially large plantings of medium to large size dedicated avocado orchards in the Far North and around Whangarei. There has been significant numbers of established growers planting more trees. Also a host of new growers in the Bay of Plenty. These have been both dedicated commercial growers and "lifestylers" who may have a couple of hundred trees but for whom the avocados are never going to be the sole source of income. Average orchard size has grown from less than 2 acres to over 6. Grower numbers are increasing rapidly.

All the new plantings in the last few years have been focused on Hass for export. The Australian market has continued to grow beyond expectations. However, by 1997 the future projections were already starting to create questioning as to the Australian markets ability to absorb the future volumes. Exporters started to look further afield and the US market was one of those looked at. Some foresighted growers who had American contacts were sending very small volumes to continental USA by air freight by this time.

The late 1990's saw the first seafreight shipments to the USA using containers. This was initiated by *Primor Produce* who established a relationship with *Mission Produce* in California. The major exporters all started to develop relationships with existing US avocado handlers.

The late 1990's saw a "culture shift" as to how to grow avocados successfully in New Zealand. There were large changes to cultural practise with very significant positive impacts on yields and sustainability. Some growers had been quietly changing practise successfully but the importation of some of South African expertise hastened the implementation of uptake by growers of new practises. Both Exporters and packers were giving management consulting advice to their growers to improve volumes and grower profitability.



As more and more growers started to manage their orchards better, industry volumes started to rise dramatically. This is combining with new planting coming into production. The volume exported to the USA rose. In 1999 the Avocado Industry Council (renamed from AEC) took up its first full time employee Dr Jonathan Cutting as Industry Manager in addition to his previously held part time position as Technical Manager.

The 1999 season export season into the USA saw 6 million pounds sent by container (both conventional and controlled atmosphere). This was a more significant volume than in the past and our presence was more noted in the market. Early fruit quality was excellent but later fruit quality had very significant internal quality problems, some very poor returns resulted and buyer confidence was reduced.

**This single issue of fruit quality outcomes in the USA focused the industry like no other event before it** The problems were across all exporters and packers and an industry wide response was required. Considerable industry discussion and action followed. All participants, growers, packers and exporters looked intently at what they did, and what they needed to do to reduce the risks of a repeat of the 1999 season.



*Harvesting large trees with a ten meter, telescopic boom, four wheel drive Hydralada®.  
(Photo courtesy NZAIC)*

A "Quality Champion" was appointed by the AIC with the prime focus on improving outturn quality in the USA. Growers, packers and exporters shared ideas as to how to reduce risk and a Best Practise Guide was produced and widely circulated. Uptake of best practise was widespread. A commitment was made to putting a system in place in the USA to objectively monitor fruit quality. To that end an outturn monitor was based in southern California for the duration of shipping to inspect fruit on arrival and sample, ripen and assess the ripe fruit quality. Fruit was also sampled and stored onshore as a fruit library. Many other small changes to handling practise were adopted and growers were more diligent in their fungicide applications. More stringent constraints were

placed on picking to shipping times. Cooperation between the four largest export groups saw bulk break reefer ships tried for the first time in 2000. The key advantages of these was the shorter shipping times and improved refrigeration control they offer. An independent maturity testing system was put in place to ensure fruit were reliably above 24% Dry Matter before harvest for export.



*The first reefer loading at the Port of Tauranga.  
(Photo courtesy of NZAIC)*

Both the 2000 and 2001 shipping seasons were very successful with no repeats of the problems of the 1999 season to any commercial scale. However the industry to date has not lost focus on the need to further improve the quality of fruit that the consumer receives. The Australian experience has shown there is no greater driver of retail repeat purchase than the availability of consistently good ready to eat fruit. The information being generated by industry wide library tray analysis and the continuing outturn monitoring is likely to continue to identify and drive further ways of enhancing the quality, in market, of New Zealand avocados.

This period has continued to see strong confidence in the future of the industry by all participants. Growers are investing in further plantings, packers and exporters in facilities, systems and people to ensure they have the infrastructure in place to handle the crop that will be there in the future. Planting is continuing at a steady pace of around 1000 acres per year. The limiting factors being over the last few years the inability of nurseries to provide enough quality trees to meet demand.

The Avocado Growers Association has many initiatives aimed at providing information and support for both new and established growers.

## **Summary**

The New Zealand industry is small, young, vibrant, growing and focused strongly on providing quality fruit to export markets. Growth to date has not been without its challenges but the industry has faced these directly in a cooperative and commercial, competitive manner. The climate and soils provide a natural environment well suited to growing large volumes of large Hass fruit. The industry structures are well organised and are assisting growers, packers and exporters to develop in a competitive environment. The future is not certain but the focus on export, continual improvement and feedback, combined with a willingness to change to meet the needs of customers in a demanding commercial environment put the New Zealand industry in a position to at least have a place in the global Hass market into the future.