COUNTRY REPORT - NEW ZEALAND

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INTRODUCTION

The New Zealand avocado industry is only about 40 years old but is well established and is the third largest fresh fruit horticultural product group in the country. The industry has a strong focus on fresh fruit exports and has historically exported 60-65% of the national crop. The balance of the crop is sold on the New Zealand domestic market or is processed for cold pressed oil. There are more than 1,100 growers registered with the NZ Avocado Growers Association (AGA).

HORTICULTURAL PRODUCTION.

The only commercial cultivar is Hass (97%) with very small numbers of Zutano, Bacon and Reed planted mainly as pollenizers. The industry is based on seedling root stocks with Zutano being the most popular. There are some Hass plantings on seedling Reed and seedling Bacon. Clonal root stocks are slowly becoming more popular as nurseries produce increasing numbers of Hass on Duke 7.

New Zealand is blessed with deep volcanic ash soil (Andosols) with low bulk densities. Most of the production in the Bay of Plenty and Northland is on volcanic soils. Avocados are grown on consolidated wind blown dune sands in the Far North region of New Zealand. The Andosols have a deep unrestricted rooting zone with a thick organic horizon on top. Phosphate and potassium are limiting elements in the soil. Typically there are deficiencies in the trace elements magnesium, zinc, sulphur, boron, cobalt and manganese.

Rainfall is between 1600mm and 2300 mm per annum depending on microclimate. The high retention of plant available water of the Andosol soils combined with a well distributed rainfall means that many trees are not irrigated. Irrigation is essential on the sandy Far North soils. *Phytophthora cinnamomi* root rot is widespread in New Zealand but the severity is generally quite low. Root rot is managed by the natural soil advantages and by using phosphonate fungicides and surface water drainage.

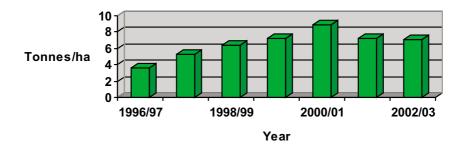
The major constraints on production are low temperatures and late frosts during spring flowering, high winds and insect pests such as six-spotted mite, various leaf rollers, Greenhouse Thrips and armoured scales. New Zealand orchards are typically surrounded by high evergreen windbreaks. Tree size control and canopy management strategies are not widely practiced in New Zealand.



PRODUCTION STATISTICS

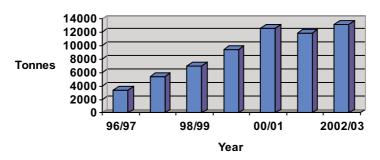
There are approximately 4,000 hectares planted. Less than 1,600 ha are more than 6 years old. The average avocado farm is 3.6 ha, but individual orchard size ranges from less than 0.5 ha to more than 50 ha. Production is limited to the North Island with almost 70% of plantings in the Bay of Plenty region centred around Tauranga. The other regions of commercial importance are Northland around Whangarei and Kaitaia and south of Auckland. National yields have been increasing slowly from a very low base in the mid 1990's. National average yield data may be distorted by the inclusion of young orchards which constitute a disproportionate amount of the total acreage and have not yet reached full production.

National average yield



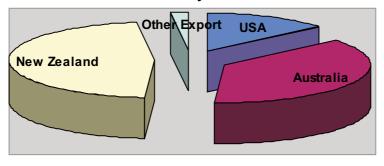
The New Zealand crop has increased from less than 4,400 tonnes in 1993/4 to more than 13,500 tonnes in 2002/3. The crop is expected to increase to over 40,000 tonnes by 2012 based on the large acreage planted in the past 6 years.

National Production from 1996-2003



The major exports markets are Australia and the United States of America (USA). Australia has been the most important export market and continues to be the largest export market consuming almost 70% of New Zealand exports in the 2002/3 season. The USA has increased in importance over the past 6 years.

Market share by destination



Smaller quantities of fruit are exported to Japan, Korea, Singapore and Taiwan. Boutique quantities of fruit are exported to the South Pacific Islands. The main harvest season is from mid-September to early March. The vast majority of the national crop is packed in 26 packing houses with the 7 largest packing houses packing half the national crop. Approximately 2% of the national crop is processed into cold pressed extra virgin avocado oil.

MARKET DEVELOPMENT

The NZ Avocado Growers Association (AGA) is committed to growing the NZ domestic market by building demand for avocados. Per capita consumption has increased from less than 250 g in the early 1990's to 1.58 kg in the 2002/3 year. The industry goal is to build demand to more than 3 kg per person by 2008. The NZ Avocado Growers' Association makes a substantial annual investment in domestic market promotion and has been involved in generic promotions for more than a decade. It is interesting to note that in New Zealand only Hass is promoted. The development of the NZ market is built around fruit quality, food safety, health and avocado food options in the NZ lifestyle. Television advertising promoting avocados as a mainstream food, and using the national

Heart Foundation "pick the tick" logo, are the core of the promotional programme. There are associated investments in food fairs, ripeness guides and point of sale material and an industry wide food safety programme. To address consumer concerns in relation to the environment and sustainability, the industry has been developing a programme called *AvoGreen*® for the past seven years and it is being commercially launched in the spring (October) of 2003.

New Zealand avocado growers, in partnership with exporters, are financially involved in the development of the Australian market through a range of commercial initiatives with leading Australian supermarket groups and commit approximately 2% of the sale value to promotional activities. Growers will contribute to the development of the USA avocado market through promotional levies paid to the Hass Avocado Board to be used to fund generic market development. New Zealand avocado growers are enthusiastic and support this programme.

Fruit quality and meeting consumer expectations to underpin and build long-term demand remains a key market development strategy for New Zealand avocado growers. Growers have invested in an integrated approach to quality which is science based and built upon grower and supply chain education, quality standards, quality compliance, quality assurance, information and intelligence systems. The intelligence systems include library trays for each grower for each harvest date and off-shore outturn monitoring. These various activities are centrally located and database driven. All this combines to ensure a powerful feedback mechanism providing input into the postharvest research programme.

INTERNATIONAL COOPERATION

The New Zealand avocado industry fully understands the global nature of the international fruit trade. There is a strong partnership between the grower body, exporters and the supply chain under the umbrella of a peak organisation, the Avocado Industry Council Limited. As a result of this partnership there is a shared view of goals and the strategic direction the industry needs to take, and a will to make it happen. Importantly the industry can speak as one and there is a vehicle for deliberate and outcome focussed international cooperation.

On a commercial level exporters and grower groups are active in developing commercial relationships with partners in all markets. The AGA has developed good international relationships with grower and industry organisations in Australia, United States and South Africa. New Zealand is starting to build relationships with Chilean avocado growers. The relationship with Australian growers is particularly close with mutual exchanges and cooperation in the fields of information and technical development. There is regular programmed high-level political and executive contact. Where appropriate there is joint funding of research. The Australian and New Zealand avocado growers share a joint conference every four years.

The AGA makes significant investments in research and development. A key outcome is the sharing and wide distribution of the research results. The AGA publishes all research funded in an annual Research Report made which is available to all growers in New Zealand and can be purchased by researchers anywhere in the world.

CONCLUSIONS

The New Zealand avocado industry is very small by international standards and produces less than 1% of world supply. The avocado sector is poised for dramatic growth in the next 10-5 years as new plantings come on stream and the benefits of growing Hass in cool climates are realised. Growers are confident in the future prospects of avocado. New Zealand is committed to being a

responsible participant in the global avocado business and has developed systems and institutions to ensure that this happens in a deliberate and robust way. New Zealand avocado growers have a strong commitment to fruit quality as a key strategy to building long-term demand. New Zealand avocado growers actively support international market development and are financially involved in programmes in New Zealand, Australia and the USA.

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