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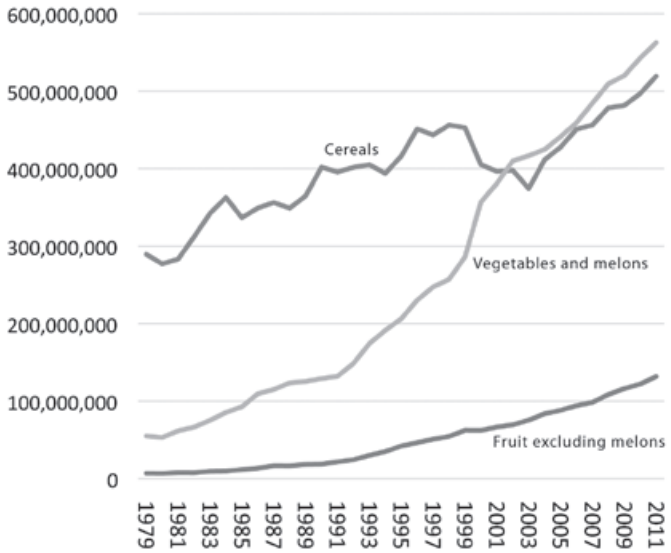
New Zealand's horticultural opportunities in China

Walk into either the Olé or BLT supermarkets, both high-end supermarkets in the World Trade Centre in Beijing, and the first products at the entrance in September 2013 include New Zealand Zespri green and sungold kiwifruit. Four-fruit convenience packs were selling for CNY 106.3, which is a little over five New Zealand dollars for each fruit.

In contrast, at a Carrefour supermarket in downtown Shanghai in the same month, imported New Zealand Zespri kiwifruit were selling for less than a fifth of this price at CNY 4.58 each, slightly less than a New Zealand dollar for each fruit. At the same Shanghai supermarket, locally produced green kiwifruit were selling for less than a fifth of this again, at CNY 6.56 a kilogram, which is about $1.25.

This begs the question of why such differences? How is value being perceived? Who is getting the apparent profits? It is not that China is short of fruit and vegetables. In the 32-year period from 1979 to 2011, Chinese vegetable production increased 10-fold and fruit production 18-fold. In contrast, the production of cereals during this period did not quite double.



Vegetable, fruit and cereal production in China 1979 to 2011

Kiwifruit is clearly the standout New Zealand horticultural product in Chinese supermarkets, but there are other examples. For example, we have seen a 20-minute Chinese television infomercial about New Zealand grown Pink Lady apples, an Australian-owned brand. Apparently a full container of these apples was then sold online within a 30 minutes of the infomercial at $1.40 per apple. The notion that television watchers could even be enticed to watch a lady and her cheer team extolling the virtues of Pink Lady for 20 minutes non-stop, let alone rushing online to purchase the apples, demonstrates how things are done rather differently in China.

New Zealand's horticultural products do have a presence in China, but are there more opportunities? What are the things that need to be thought through before entering this enormous market?

Local production

Chinese horticultural production systems are sophisticated. Large glass-house systems are to be found all over China. In some cases individual farmers lease part of a facility, in others it is industrial horticulture undertaken by large companies. At a technological level, the Chinese know how to produce the staple crops at a low cost of production. Root crops usually sell for well under one New Zealand dollar a kilogram and other local vegetables at well under two dollars.

Local and imported product prices in Xi'an supermarket November 2012

	Price per kilogram in New Zealand dollars equivalent $1 = CNY 5
Local	
Potatoes	0.63
Kumara	0.35
Cabbage	0.20
Tomatoes	1.20
Beans	1.40
Chillies	1.60
Imported	
USA plums	8.00
USA lemons	8.00
USA oranges	5.50
USA red grapes	12.00

The Chinese also understand technologies such as hydroponics and they have been using these for decades. In relation to both large-scale and precision horticulture, it is therefore probable that we have more to learn from them than they from us. Of course not all Chinese horticulture systems are industrialised, but this is the way of the future, particularly as labour costs increase.

It means big glasshouse units, big kiwifruit orchards and big vineyards. China may well have many challenges producing the feed for the growing herds of dairy cows and pigs, but it has no difficulty in producing the volume of fruit and vegetables needed for human consumption. Therefore if foreigners try and compete with local Chinese production at the commodity level they will fail. There is no chance of success.

Local supply chains

Supply chains for local produce are in a state of transition. With an increasingly urban population, the logistical demands of getting produce from the farms to the cities are increasing. Most fruit and vegetables are probably still sold through wet markets, although supermarkets are rapidly building their market share. The attraction of the wet markets is supposed freshness and cheapness, but with no guarantees of provenance.

However, not all produce sold in wet markets is necessarily of local origin. Even imported produce, particularly from other Asian countries, makes its way from large wholesalers to street-side sellers. Cool store facilities are limited and therefore shelf-life is usually short. Moving products throughout China is becoming increasingly straightforward via the super highways which criss-cross the nation.

Once outside the cities, travel is rapid, with highways of at least six lanes, but in general there are no centralised distribution systems to the supermarkets. This applies for all products, not just horticulture, and this is a major inefficiency in the system. Some large horticulture producers run their own fleet of chilled trucks while others rely on logistics companies.

Imported products, food safety and healthy living

Imported products from Taiwan, South Africa, the Philippines, the United States and New Zealand now reach the supermarkets of even the most distant cities of China, thousands of kilometres from the ports. Prices are generally at least twice those of local origin and in many cases much more. This price positioning relies on two intangibles. The first and most important is the perceived food safety. The second relates to the status associated with being able to eat new products and offer foreign fruit to your guests.

Beijing upmarket store prices September 2013

Product	Source	Price per kg in NZ dollars equivalent
Green grapes	Chile	20.00
Black grapes	Chile	28.00
Black grapes	Shanghai	2.80
Black grapes	Xinjiang, western China	6.40
Green apples	Chile	10.00
Red apples	Chile	6.00
Pears	South Africa	12.80
Grapefruit	South Africa	5.60
Pomelo	Taiwan	12.00
Green kiwifruit	New Zealand	14.80
Kiwi sungold new variety	New Zealand	37.20

Food safety concerns are everywhere in China. Nobody trusts the local systems. The most prominent food safety scandals in recent years have been melamine in milk and rat meat sold as lamb. There have also been a myriad of other examples including aflatoxins, cadmium and mercury in food of plant origin. Within horticulture there is no consumer confidence in relation to chemical residues from pest control. Consumers are also wary of chemicals sprayed on to improve

the appearance. We know of Chinese who prefer to buy unwashed carrots with soil still attached, indicating they had not been sprayed and more likely to have been recently harvested.

Chinese concerns for healthy living and longevity are rooted in Taoism, also known as Daoism, a philosophy which goes back more than 2,000 years. Taoism emphasises the seeking of eternal life from both spiritual and physical meditation. A big part of the physical meditation is by eating the right kind of foods. There is a complex theory about what foods are hot, warm, cool, cold, rich, nourishing or harmful and is so complex that even an average Chinese person would not totally understand.

Any food intake is either to nourish or harm the body, although the degree of such nourishing and harming may vary greatly depending on the specific food. For example, peaches are regarded as warm and nourishing whereas apricots are hot and harmful. Even worse are plums, which are believed to be cool and lethal if consumed too much. There is an old saying, 'Peaches nourish the body, apricots harm the body, and under the plum tree lies the buried body.' The fact that such notions may lack a scientific basis is irrelevant. The main concern is that food and culture are closely intertwined.

The Chinese want food that is natural because they perceive it as more likely to be safe. Organic farms on city outskirts where people can either buy their own produce, or have the it delivered to their apartments, are increasingly popular among the wealthy and privileged classes. Similarly, food from the grasslands is perceived to be more likely to be free of artificial chemicals.

With regard to New Zealand, the perception of a distant and remote island country which is genuinely clean, green and unspoiled is very powerful. In contrast, we have seen no evidence that the Chinese are prepared to pay more for green food for any altruistic reasons, such as to save the planet. It is simply that they associate such food with safety.

Current trading relationships

In 2012, New Zealand exported horticultural products to China worth $105 million with the major ones being kiwifruit making up $94 million, frozen peas $4 million and apples $2 million. Apart from kiwifruit, for which a tariff of 8.9 per cent was applied in 2012, reducing to zero by 2017, nearly all other horticultural products are already tariff-free under the free trade agreement. This compares to other World Trade Organisation countries which pay 10 to 25 per cent.

Chinese kiwifruit at the same price as Zespri green in Shanghai

Vegetable seedling production in a controlled environment

Variety of fresh produce in a Shanghai supermarket

Hydroponic vegetable production in a controlled environment

However there are phytosanitary barriers which require government-to-government negotiations. From a New Zealand industry perspective these have been proceeding inordinately slowly. In some cases, New Zealand has put forward the relevant submission to China, but other crops such as capsicums and tomatoes have apparently yet to get on to the list for consideration.

Opportunities for fruit and vegetables

The Chinese are very open to new foods. In the past, many crops such as carrots, peppercorn and dates were introduced via Central Asia and the Silk Road. For example, the Chinese name for the carrot, which is widely eaten in China, translates back to English as foreign radish. More recently, lemon and avocado juices are being found on restaurant menus among other traditional fruit juices. Similarly, although Chinese apples are traditionally sweet rather than tart, a niche has been found for the tart Pink Lady.

Blueberry, avocado and feijoa have all been suggested to us as fruit with currently unrealised potential for China. Another opportunity is with vacuum-packed dried fruit and vegetables. These, such as dates or apple slices, can retain good colours of the original fruit and are often offered as snacks on airlines in China. There are also opportunities for branded fruit juices which appeal to the demand for safe food.

The flower industry

In recent years there has been spectacular growth in the Chinese flower industry, particularly in provinces such as Yunnan where there are regions with an all-year sub-tropical climate, as well as throughout China using controlled environments. However, 2013 has been a watershed year with demand plummeting. This downturn is mainly due to a government crackdown on official extravagance, led by the new President Xi Jinping.

No longer are fresh flowers used for lavish banquet decorations. It is not just the decorations that have gone, the banquets themselves are no longer being held among the nation's 26 million officials. This has reduced the demand for flowers by at least 20 per cent. Only time will tell if this is a short or long-term change.

Investments in Chinese horticulture

The two best known examples of New Zealand investments are Global Horticulture in Shaanxi Province, in what the Chinese call north west China although geographically in the centre, and Biovittoria in Guangxi, in south China and bordering Vietnam. Both are wholly-owned foreign companies. Global Horticulture has been an ambitious investment in kiwifruit orchards, pollen production, new varieties, cool stores and a juice factory. Currently this company is going through a restructure having seriously over-reached itself financially. The evidence would suggest that the Chinese kept their side of the bargain in terms of the business environment they offered, but the New Zealanders fell short.

Biovittoria is the brain child of Dr Garth Smith who discovered that a particular mogroside within the local luo han fruit could be used as a natural zero calorie sugar replacer. Biovittoria processes the extract to a powder form. This company continues to chart a development trajectory and has 'generally regarded as safe' status from the US Food and Drug Administration allowing the product to be used commercially.

The processing occurs in China, but the company is headquartered and managed from New Zealand. Dr Smith, although still resident in China and the founding director, no longer has an operational role. The last public announcement from the company was in August 2012 with the launch of zero calorie Nectresse in association with a Johnson and Johnson subsidiary McNeil Nutritionals. The company has the protection of processing patents, but its long-term future will depend on getting a good supply of quality fruit from contract Chinese growers.

The third notable New Zealand horticultural endeavour in China has been that of expatriate Lew Dagger. He is based in Yunnan, but with horticultural interests across many provinces. He originally went to China to commercialise the international marketing of the red pear, developed with input from Plant and Food. Although still involved with the red pear industry, Lew, to use his own words, 'failed to internationalise the product'. The reason was that local prices were too good for any of it to be exported. He has subsequently found a niche in the licensing of foreign plant varieties to Chinese companies, despite the challenges of intellectual property protection, and he consults widely across China on horticultural development and marketing.

Conclusion

There are opportunities for New Zealand within China's horticulture sector, but this will not be in the commodity sector where the local cost of production is much lower than in New Zealand. The Chinese horticulture advantage comes from relatively low labour costs combined with modern technologies. This creates a different situation from dairy and meat where New Zealand's competitive advantage does extend into commodity products and markets.

In contrast, a competitive advantage for New Zealand's horticultural products in China requires a branding focus aimed at top-end markets, with an associated clean green story which translates as meaning safe food. Phytosanitary challenges for some crops still need to be sorted out at a government level. As well as fresh produce, the opportunities can include fruit juices and dried fruit. There may also be opportunities, under strict licensing and quality control, of patented and trade-marked New Zealand-bred varieties.

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