

DEVELOPMENT OF UNTAPPED EXPORT OPPORTUNITIES FOR STONEFRUIT TO ASIA

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ABSTRACT

Australia has an excellent opportunity to increase exports of counter-seasonal, low chill stonefruit to Asia during the months of September to December, inclusive. In contrast to developed countries, Asian populations are becoming increasingly urbanised, and disposable incomes are increasing rapidly. According to the Chinese Academy of Social Sciences, China now has over 200 million middle class people with this number expected to double in the next 10 years. The market demand for imported fruit into China alone is estimated at 43 500 containers, annually (Noel Shields, Metspan, 2005). Base on current consumption rates in Hong Kong, we estimate that the counter-seasonal demand for high-quality stonefruit in China will be at least \$200 million annually. Australian industries must become more organised to access these markets. We suggest that this can only be achieved through a major restructuring of our fruit industries including: the formation of significantly larger export companies, setting up highly mechanised and efficient regional pack-houses and integrated multi-modal transport and logistic systems, implementing standardized packaging and QA systems, promoting an internationally recognised brand name, forecasting based on real time market intelligence and reducing 'red tape' by moving to seamless, paperless information transfer systems. In Australia, we currently have over 2 100 companies exporting fruit with most shipping less than 20 000 trays, annually. In contrast, our major competitors such as Chile and South Africa have less than 10 major stonefruit exporters, each exporting in excess of 100 million tray equivalents annually. We suggest that Australian growers adopt the successful export business model developed by the grower-owned, New Zealand company, Zespri, which exports close to \$1 billion worth of kiwifruit, annually. Opportunities also exist for Australian farmers to grow stonefruit in Asia. For example, Emu Exports Pty. Ltd, based in Queensland, is growing high quality mangos in South Vietnam with the aim of exporting these to China. Both growers and LCA could greatly capitalise on the royalties and marketing opportunities presenting in Asia from the release of world-class low-chill stonefruit varieties from the DPI&F breeding program. Greater research effort needs to be placed on meeting Asian consumer preferences and also on pre-harvest and varietal factors affecting storage life of stonefruit to enable low-cost sea-freighting to Asia.

IMPACTS OF GLOBALISATION

Globalisation is set to have a major impact on world horticultural production and distribution of fruit and vegetables throughout the world (George et al., 2004, 2005a). The key drivers are: government deregulation which, when combined with improved disinfestation, is leading to freer trade; fewer but larger international global distribution and supply companies and supermarket chains (George et al., 2005a; Hendrickson, 2001); and the emergence of China as a large producer and exporter and importer of fruit (FAOSTAT, 2004). Production of fruit and vegetables in most developed countries is relatively static (Figure 1). In contrast,

production in the developing countries, in particular China, has expanded rapidly over the past 25 years but it is now showing signs of slowing over the last few years.

WORLD POPULATION AND INCOME GROWTH

World populations are expected to reach nearly 9 billion by 2040 and then start to decline (FAOSTAT) (Figure 1). Most of the population growth is in the developing countries such as China and Brazil (Figure 2). In contrast, population growth in the developed countries has slowed as birth rates have fallen to about 1.5 children per woman. The current population of Asia is estimated to be 3.4 billion. In comparison, the USA has a population of 329 million and Europe 713 million. Australia population growth rate is expected to fall to about 1.5% per annum. Our growth is highly dependant on immigration

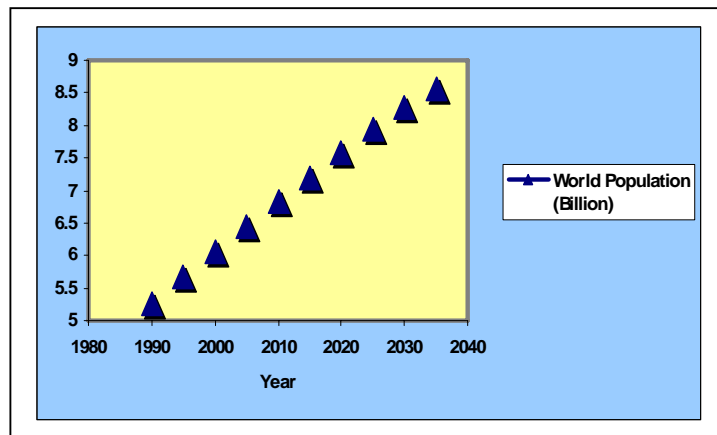


Figure 1. Projected changes in world population (FAOSTAT)

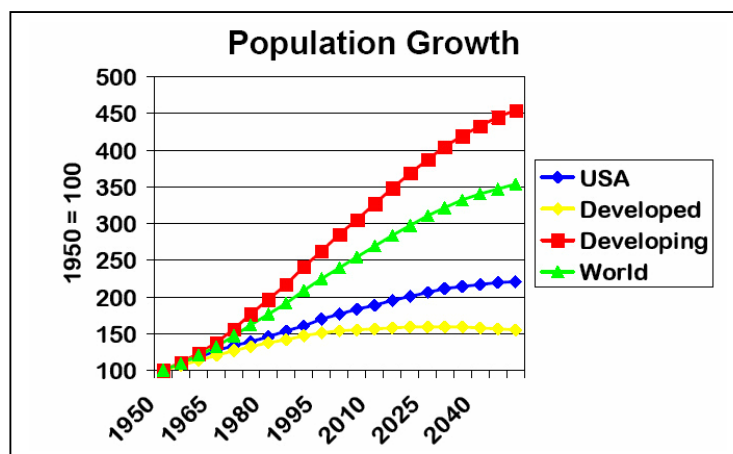


Figure 2. Projected changes in world population for different sectors (FAOSTAT)

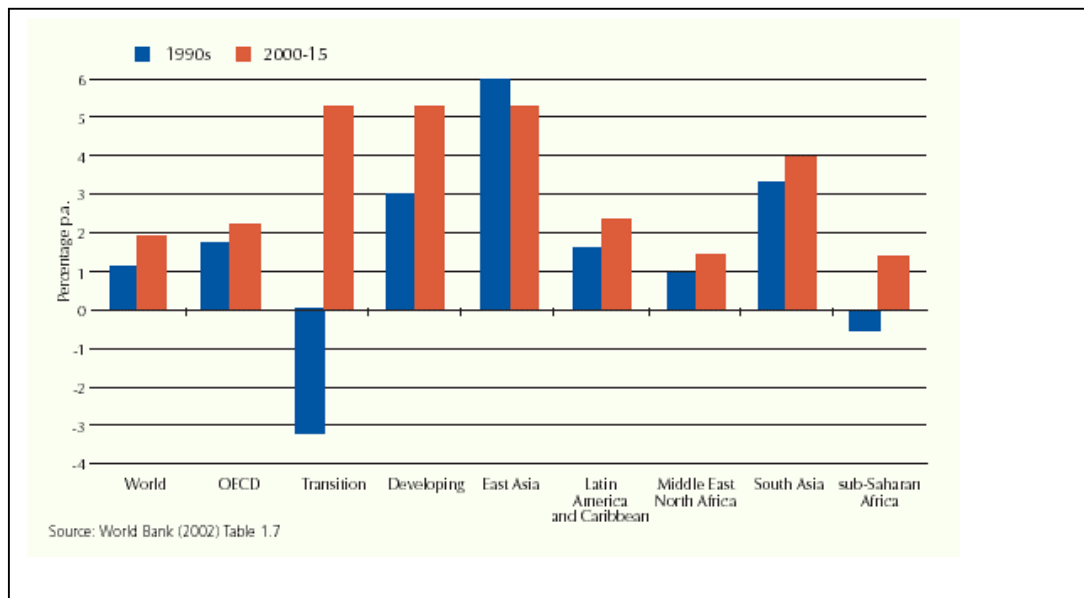


Figure 3. Expected changes in GDP growth rates for selected countries

Countries such as China are rapidly urbanising with large shifts in the population migrating to the cities. Currently about 40% of the population live in the cities but this is expected to increase to 60% within 10 years.

Due to high levels of productivity, significant foreign direct investment and introduction of new technologies, China's growth rates have averaged about 8% per annum for the past ten years and are likely to continue at this level into the future (World Bank, 2020; Figure 3). In contrast, growth rates in GDP of most developed countries is expected to fall due to slower population growth rates and the rapidly aging population which will be supported by fewer workers and will be increasingly dependant on welfare.

According to the Chinese Academy of Social Sciences (China View, 2004), China now has over 200 million middle class people with this number expected to double in the next 10 years. This group will have sufficient income to purchase high quality fruit and vegetable imports from Australia and other western countries. Based on population and income growth, we can see that Asia will become a major market for high quality products in the next 20-30 years.

Based on the Global Competitiveness Report of 2004, Australia is currently ranked 12 in terms of overall competitiveness. International competitiveness will be strongly linked to innovation, strategic planning and export capability. Strategically, Australia must re-engineer its export supply chains to capture a greater share of the Asian export market which will be vital for maintaining our standards of living.

WORLD AND ASIAN FRUIT CONSUMPTION PATTERNS AND DEMAND

With few exceptions, fruit consumption per capita in the world, and in particularly for most developed countries, including Australia (ABS, 2000; ABARE, 2003), is static (Figure 4). In

contrast, current consumption rates for fruits in Asia are low but increasing rapidly as incomes increase (Figure 5). As Asian diets become more westernised (FAO, 2005), food consumption patterns change with people eating more meat, dairy products and fruits and vegetables.

Fruit consumption increases rapidly with increasing incomes up to \$10 000US before plateauing (Figure 6). The significance of this is that even a small increase in incomes of developing Asian countries will lead to large increases in the demand for high quality fruit and vegetables.

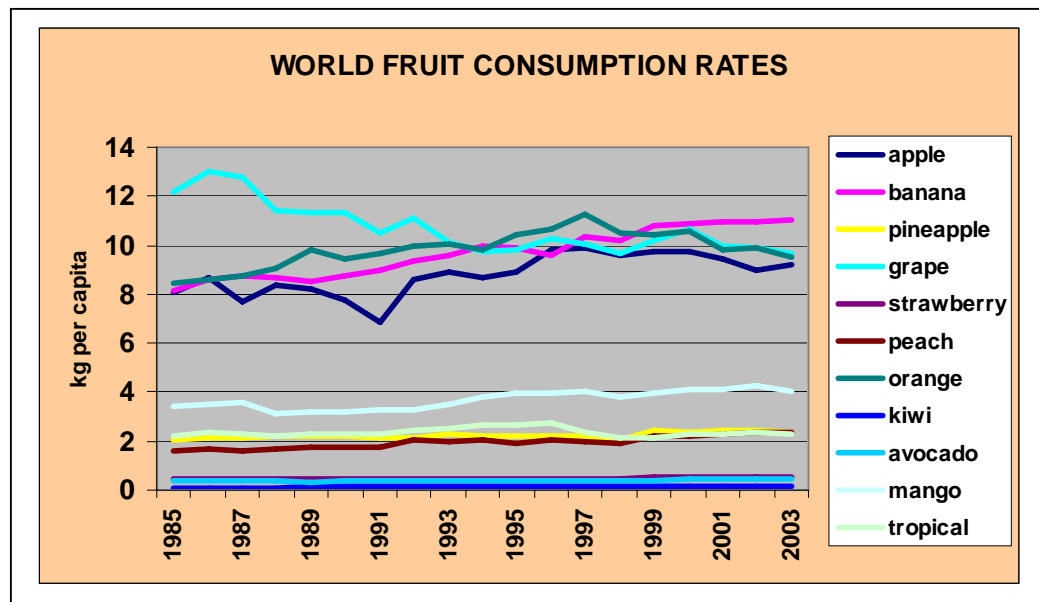


Figure 4. World fruit consumption patterns for selected fruits (FAOSTAT, 2004)

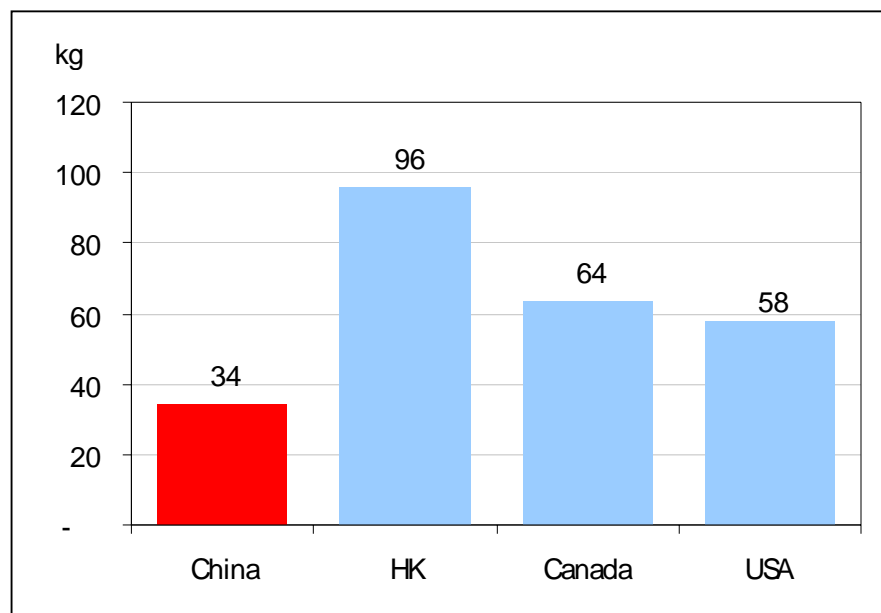


Figure 5. Fresh fruit consumption patterns in selected countries

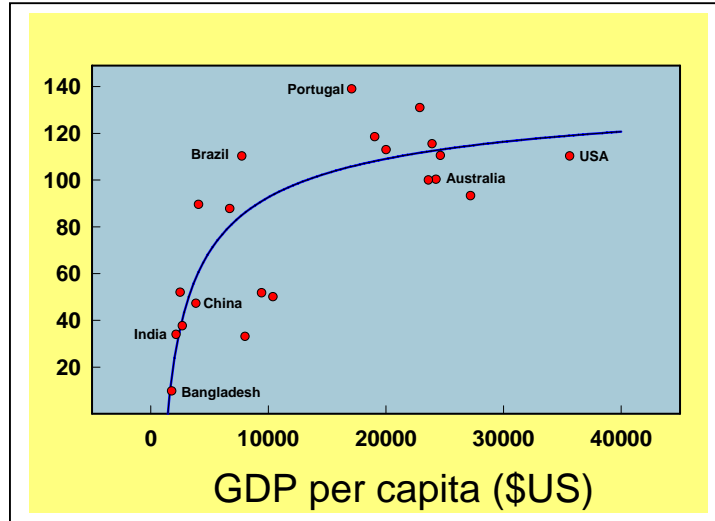


Figure 6. Changes in fruit consumption per capita (kg) with incomes

Figure 6 also highlights the problem that we have with trying to increase consumption of fruit in developed countries as proportionately less income is spent on fruit and vegetables purchases once incomes rise above about \$30 000 US.

Asia's demand for fruit, both tropical and temperate, is projected to continue to grow significantly (Figure 7). The market demand for imported fruit for China alone is estimated at 43 500 containers, annually (Noel Shields, Metspan, 2005). Based on modelling studies by the Australian National University, the annual demand for tropical and temperate fruit is expected to increase by a maximum of 39 and 25 million tonnes from 1997 to 2010 (Figure 7) (DFAT, 2002).

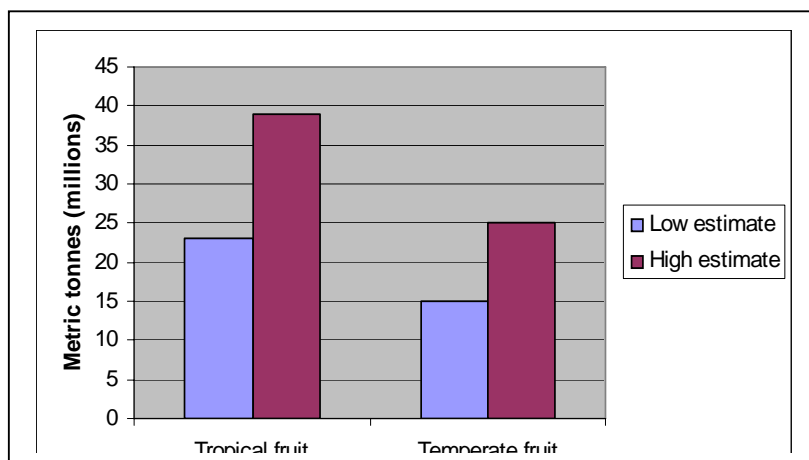


Figure 7. Projected demand for fruit in Asia (DFAT, 2002, IFPRI, ANU, 2003)

Consumption levels for stonefruit in Asia (Figure 8) are about half that of Australian consumers (Figure 9) but increasing. In contrast, Australian consumption of stonefruit is

static. In Asia, consumption of plums is much higher than peach and nectarine, with the latter fruit virtually unknown by Asian consumer. If current consumption rates in Hong Kong are extrapolated to the rest of China, we conservatively estimate that the counter-seasonal demand for high-quality stonefruit by wealthy Chinese in China will be at least \$200 million annually. Summerfruit Australia Ltd. (SAL) is currently seeking market access to China.

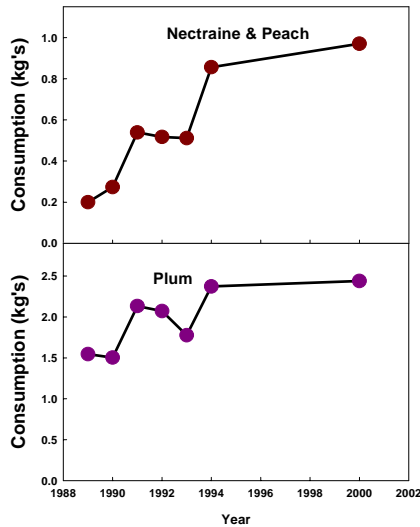


Figure 8. Changes in consumption pattern for stonefruit in Hong Kong

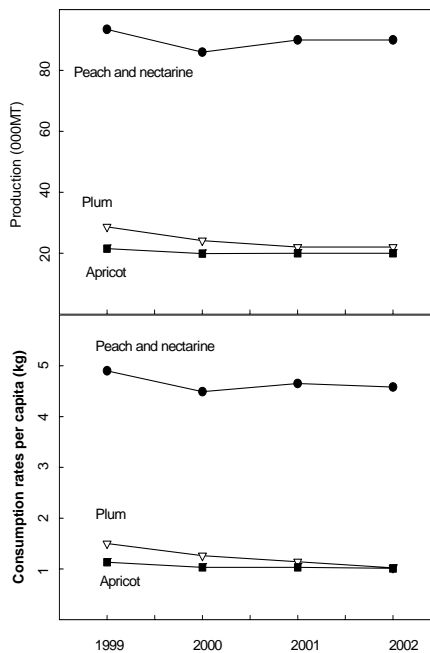


Figure 9. Total Australian production of stonefruit and consumption per capita

WORLD FRUIT AND VEGETABLE PRODUCTION

For developed countries, production of fruit and vegetables is expected to increase only slightly (0.4-1.5% per annum) over the next 15 years (Figure 10).

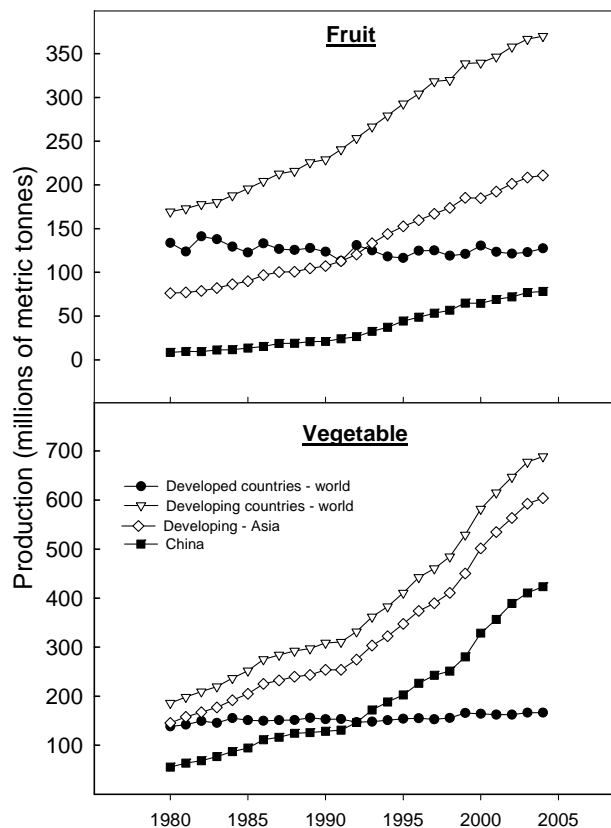


Fig. 10. Changes in vegetable and fruit production for selected countries (FAOSTAT, 2004). (Fruit values exclude melons).

Similar growth patterns are apparent for temperate fruits where production of temperate fruits in the USA and Australia is increasing slowly or is static. In contrast, production of stonefruit in China is rapidly increasing (Figure 11).

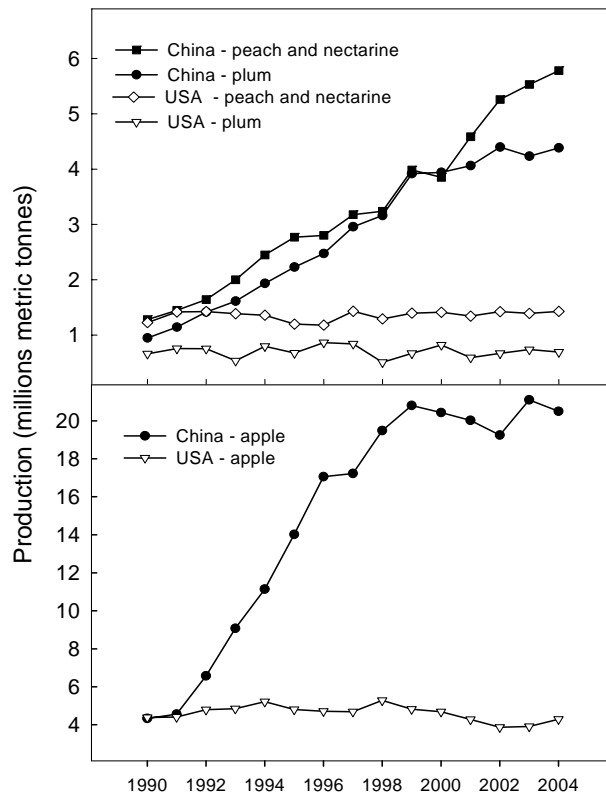


Fig. 11 Changes in production of selected temperate fruits for China and USA. (FAOSTAT, 2004).

WORLD EXPORTS OF FRUIT AND VEGETABLES

Value of exports of fruit and vegetables from developed and developing countries are highly country-dependant with some countries such as Australia showing static or declining exports (Figure 12).

For transitional Asian countries, most of the increase in export value has come from China and to a lesser extent from Thailand, Philippines and Vietnam. Competition between these transitional Asian economies is fierce.

There has also been a shift from producing and exporting fresh product to processed or frozen product. This shift favours the developing countries as processed products are already disinfested or easier to disinfest and can be more easily shipped.

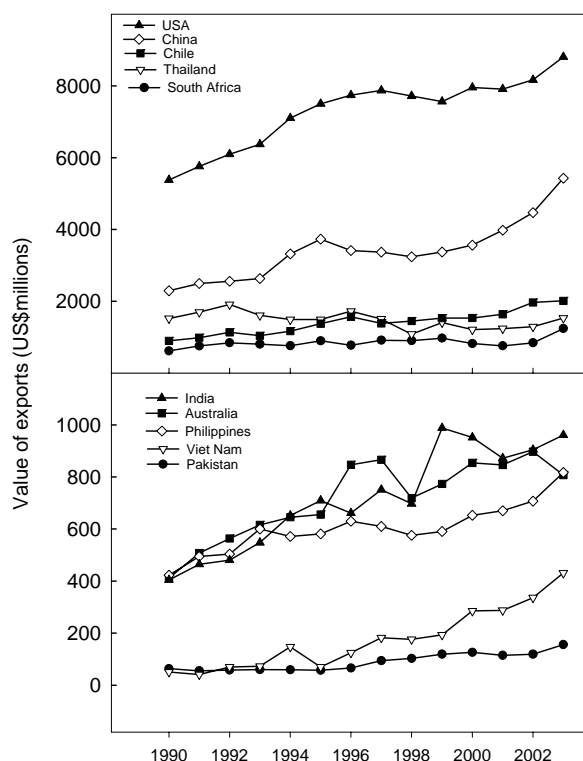


Fig.12. Value of fruit and vegetable exports from selected countries (FAOSTAT, 2004)

EXPORTS OF AUSTRALIAN STONEFRUIT

In 2004/2005 season Australia produced 75 240 tonnes of stonefruit of which 14 400 tonnes was exported (about 20%) (SAL Annual Reports, 2004/05). Hong Kong and Taiwan have remained the dominant markets (Figure 13) but recently our stonefruit have been excluded from the Taiwan market for phyto-sanitary reasons.

Australia is facing stiff competition from Chile in all markets (Figure 14). Chilean fruit is normally sea-freighted so that the transit time may take as long as 30 days to reach export locations such as Hong Kong. The first stonefruit to arrive in Hong Kong from Chile is in late December. Consequently, low-chill stonefruit produced in Australia has a *definite export market niche* from mid-September to mid-December. This is a time when there are no peaches and nectarines available from Chile or the USA on the Asian markets.

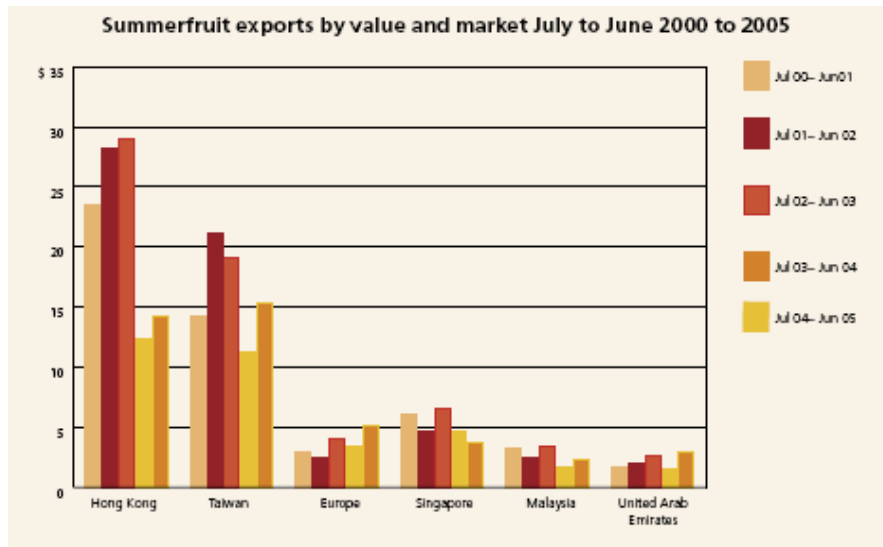
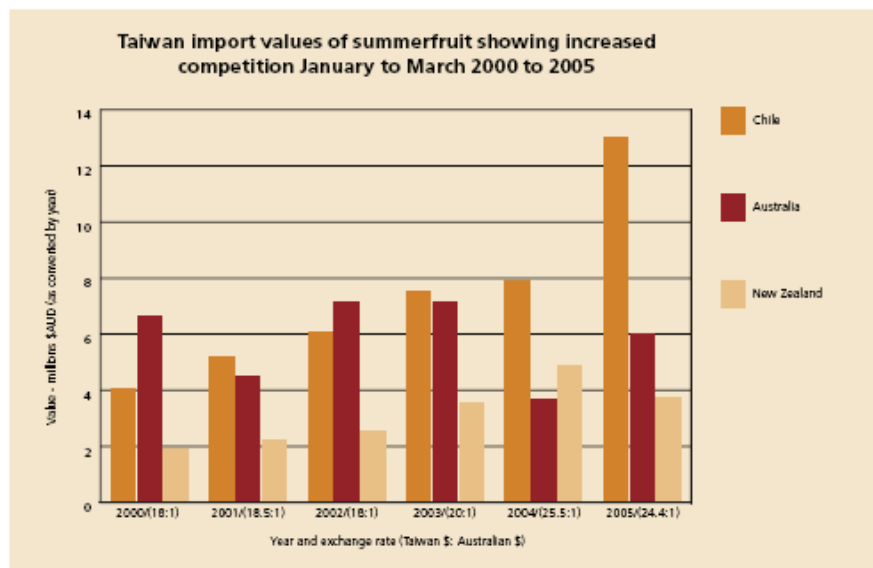


Figure 13. Summerfruit exports by value and market (SAL, 2004/05 Annual Report)



This graph shows the increased competition from Chile and New Zealand in Australia's second largest summerfruit market, Taiwan. Source of data: Taiwan directorate general of customs; Yahoo finance, HAL analysis

Figure 14. Value of imports into Taiwan. (SAL, 2004/05 Annual Report)

WHY EXPORT LOW-CHILL STONEFRUIT

Currently, low-chill stonefruit produced before mid-November receive high prices because of their earliness. Consequently, there has been little incentive in the past to export early-season stonefruit with the exception of those varieties that mature in late November. However this situation may change if increasing volumes are marketed domestically.

It is difficult to calculate the volumes of stonefruit sold throughout Australia. Brisbane is the only wholesale market to keep throughput figures and information on volumes traded through the supermarket chains is kept strictly confidential. For the Brisbane markets only, volumes of low-chill stonefruit sold have remained relatively static over the past 10 years (Figure 15) probably reflecting turnover in farms growing this fruit.

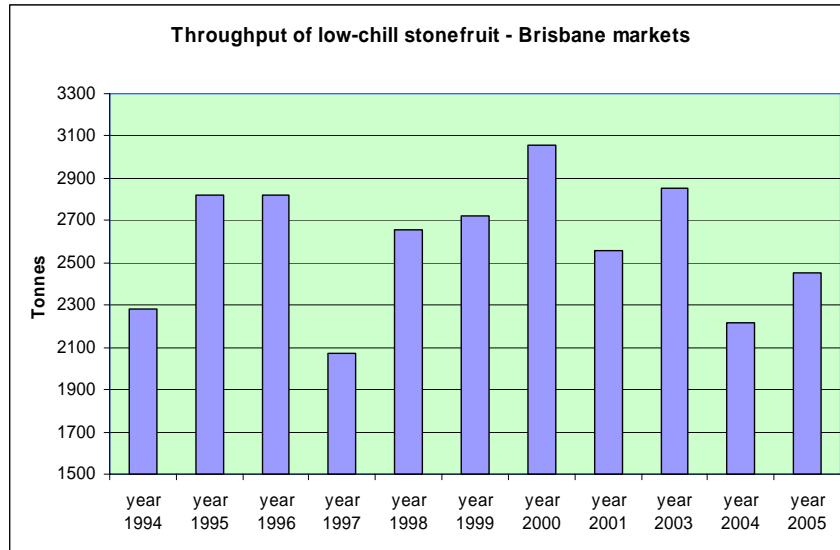


Figure 15. Throughput of low-chill stonefruit (Sept. - November, inclusive) through Brisbane Wholesale Market

Despite little change in the volumes traded, average prices received for low-chill stonefruit in the Brisbane markets has dropped significantly (Figures 16, 17). We suggest that the drop in price is due to increasing production and competition from table grapes and mango rather than due to increasing volumes of stonefruit being marketed. However, this needs further verification.

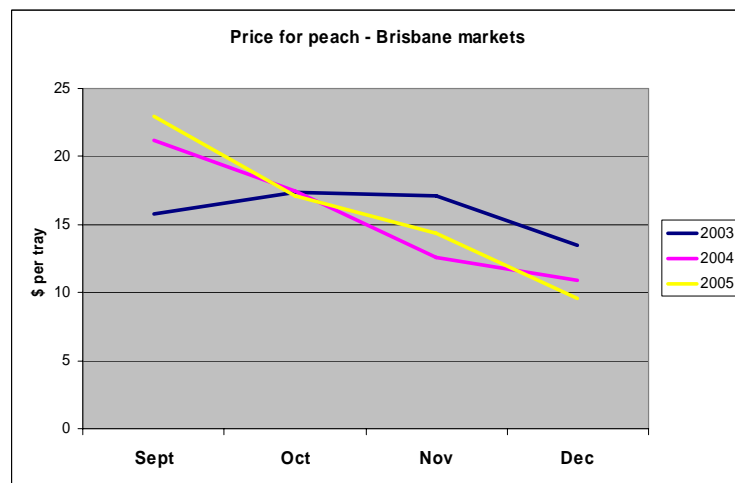


Figure 16. Average prices for peach in the Brisbane wholesale market

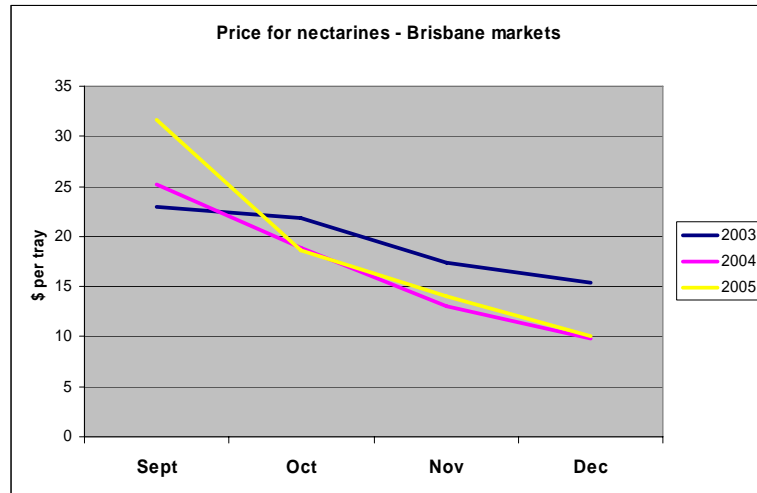


Figure 17. Average prices for nectarine in the Brisbane wholesale market

Attractiveness to export may increase in the next 5-10 years if prices continue to fall.

A drop in price will be exacerbated by the following conditions:

- if Australian low-chill production increases significantly due to entry of large-scale corporate farmers
- if imports from the USA, during the August – September period, succeed
- if competition from other Australian fruits eg table grapes, mango during the low-chill harvest period continues to increase

In studies with other fruits it as been shown that once fruit are available all year round their prices remain relatively lower compared with seasonal fruits. This could be situation if USA stonefruit gain entry into Australia.

EXPORT OPPORTUNITY

Australian-produced low-chill stonefruit has many competitive advantages over competitors including:

- counter-seasonality to northern hemisphere producers such as China and the USA
- closer proximity to the Asian markets than other southern hemisphere competitors such as South Africa and Chile
- access to the Asian markets during the months of September to December before competitors such as Chile
- access to world class new varieties from breeding program conducted by DPI&F and PhytoNova
- a significantly differentiated product compared with our competitors
- a clean and green image

We have a counter-seasonal, marketing opportunity to Asia during the months of September to December, inclusive, valued at least \$200 million (Figure 18). However, there is a maximum price that the Chinese will pay for high quality stonefruit even during the off-season. Therefore it will be imperative that we:

- reduce costs of production through the new management systems developed by the Maroochy research Station
- re-engineer the export supply chain (discussed below).

More recently, it has been suggested that the most valuable source of competitive advantage will be the *ability to produce and supply high quality fruit all-year round* (Roberta Cook, 2004). This will only be achieved through northern and southern hemisphere alliances and through direct marketing to the supermarket chains.

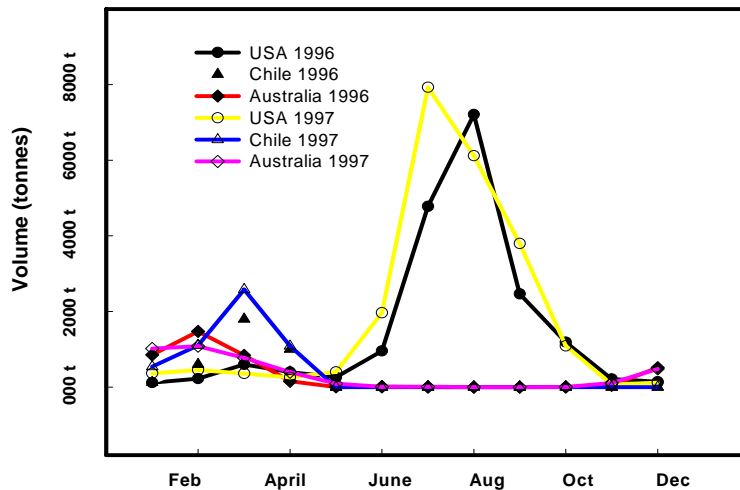


Figure 18. Seasonal changes in volumes of stonefruit traded on the Hong Kong market

IMPROVING OUR EXPORT CAPABILITY

Developing a new export strategy

We suggest that our major sources of competitive advantage can only be achieved through a major restructuring of our fruit industries. A new, holistic approach to strategic export planning, which encompasses the changes due to globalisation, is urgently needed. George et al. (2005b) describe a 6-step process for improved strategic planning for Australian horticultural industries. This process will not be presented in this paper.

We suggest that the key areas for re-engineering include:

- the formation of significantly larger export companies
- setting up highly mechanised and efficient regional pack-houses
- setting up an integrated multi-modal transport and logistic systems

- implementing standardized packaging and QA systems
- promoting an internationally recognised brand name
- global forecasting based on real time market intelligence
- reducing 'red tape' by moving to seamless, paperless information transfer systems.

Some of ways to implement these changes are briefly described below.

Controlled loop marketing

In Australia, we currently have over 2 100 companies exporting fruit with most shipping less than 20 000 trays, annually. In contrast, our major competitors such as Chile and South Africa have less than 6 major stonefruit exporters, most of whom export in excess of 100 million tray equivalents annually. Based on current Australian production levels, Australia can possibly sustain three globally competitive, export marketing companies. Ideally, these export marketing companies should be farmer-owned and employ their own professional marketers (vertical integration). We suggest that Australian growers adopt the successful export business model developed by the grower-owned, New Zealand company, Zespri, which exports close to \$1 billion worth of kiwifruit, annually.

Control of genetic resources

Control of superior germplasm will be essential for future survival of Australian horticultural industries. The low-chill stonefruit industry is in a fortuitous position due to its access to world-class varieties from the DPI&F breeding program. In Australia, the production and marketing of these new varieties is being licensed, but to gain maximum benefits, the industry should also investigate the feasibility of producing and marketing these varieties in other countries. Collection of global marketing royalties, similar to Zepri Gold kiwifruit, could greatly boost future breeding and R&D programs. An Australian and northern hemisphere partnership/venture could also help to build a strong international brand name.

Australian partnerships in Asian stonefruit production

Opportunities also exist for Australian farmers to grow stonefruit in Asia under contract or with joint venture partners. For example, Emu Exports Pty. Ltd, based in Queensland, is growing high quality mangos in South Vietnam with the aim of exporting these to China.

Future research

Greater research effort needs to be placed on determining and meeting Asian consumer preferences and also on pre-harvest and varietal factors affecting storage life of stonefruit to enable low-cost sea-freighting to Asia.

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