

PROCESSED FRUIT AND VEGETABLES

Analysis of the determinants of prices and costs in product value chains

PROCESSED FRUIT AND VEGETABLES – OVERVIEW

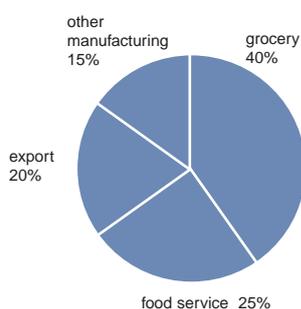
Background

The processed fruit and vegetable sector comprises frozen vegetables and tinned fruit and vegetables. The processed fruit segment is 65 per cent of this sector by market share.

The industry's product mix

This sector has the following mix of products and markets.

Figure 67. **SHARE OF FRUIT AND VEGETABLE PRODUCT MARKET**



Source: Ibisworld 2003e

Grocery remains the major driver of returns as the market share held by the major retailers is very high.

Major drivers of prices

- Returns to processors and producers from the processed tinned and frozen food products sector are strongly influenced by international trade – with a significant percentage of imports (on average, 20 per cent) affecting several major lines.
- Competition between companies is chiefly based on price, though companies have been striving to increase the diversity of their product range offering to remain attractive to retailers, to leverage brand position and to increase capacity utilisation.
- These food segments have suffered due to their traditional product nature and companies have been forced to innovate in several areas to increase product appeal and relevance against increasing demands for convenience and fresh foods.
- Producers have been forced to operate for lengthy periods of time without price increases due to the competitive pressure on processors and manufacturers.
- At retail, locally produced processed food products are under pressure from a range of food innovations and marketing and promotional strategies in other sectors.
- The major push by grocery retailers for a clean and fresh image, as well as policies of sourcing processed products globally (where prices are competitive with locally supplied product), has limited sales and margin growth for the processed food sector.

Figure 68. **PROCESSED FROZEN VEGETABLES: MAJOR DRIVERS OF PRICES AND COSTS**

The processed frozen vegetable sector is dominated by two major international processors in several categories. The product category remains under pressure from actual and potential imports of product at processed or finished goods stages.

1. Farm production factors

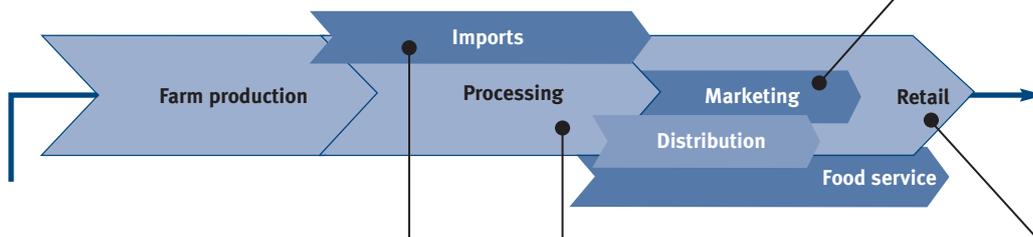
- Stable volumes of production.
- Seasonality of production is tightly controlled through terms of supply contracts between grower and processor.
- Prices limited by strong market power of the processors.
- Products have high perishability, picking schedules are structured to prevent need for storage.
- High barriers to entry in terms of skill, customer contracts and capital outlay for land and equipment.

2. Value-chain integration

- Majority of farm supply is under contract with tight controls over the timing and volumes of supply.
- Limited integration of activities along the chain.
- Increasing scale efficiency in certain sectors of farm production and in vegetable processing.
- Tight concentration of ownership of processed food operations.

3. The marketing approach

- Local industry is dominated by international manufacturers and brand marketers.
- Increasing differentiation of frozen products for retail and food service sectors tailored to a wider range of convenience cooking needs (for example, stirfry combinations).
- Product marketing continues to aim at a convenience theme to avoid wastage of fresh product in kitchens.



4. Regulation and compliance

- Increasing costs of doing business in farm enterprises to meet environmental, product integrity and food safety demands.
- Tight concentration of processing sector – limited scope for further rationalisation to enhance profitability.

5. Trade impacts

- Imports have access to significant portion of markets in certain segments (for example, peas).
- Majority of frozen imports are packed in private label products or packed in local plants – this places limits on domestic processed prices into retail.
- Pressure from the potential to import frozen potato products keeps pressure on local wholesale returns to processors.

6. Technology and innovation

- High level of capital intensity in harvesting, grading and processing stages.
- Limited innovation in varieties for processing.
- Limited transparency of market prices and information beyond the farmgate due to tight concentration of the sector.
- Greater investment in innovation to diversify core products and extract value from co-products (potato gems, hash browns) – especially the case in potatoes for food service and vegetables prepared for different end uses.

7. Retail market dynamics

- Growth in value-added frozen and ready meal and combination products.
- The growth of the private label in frozen products has put price pressure on branded products.
- In potato segment, strong presence of quick service restaurants has expanded the category.
- Quick service restaurant sector under pressure to re-invent itself through consumer concerns on food and body health.
- Greater demand for convenience and lifestyle solutions in meals and snacks
- Greater retail concentration has resulted in strong margin pressure.

Figure 69. FROZEN VEGETABLES, PEAS, BEANS, SUPPLY CHAIN MAP

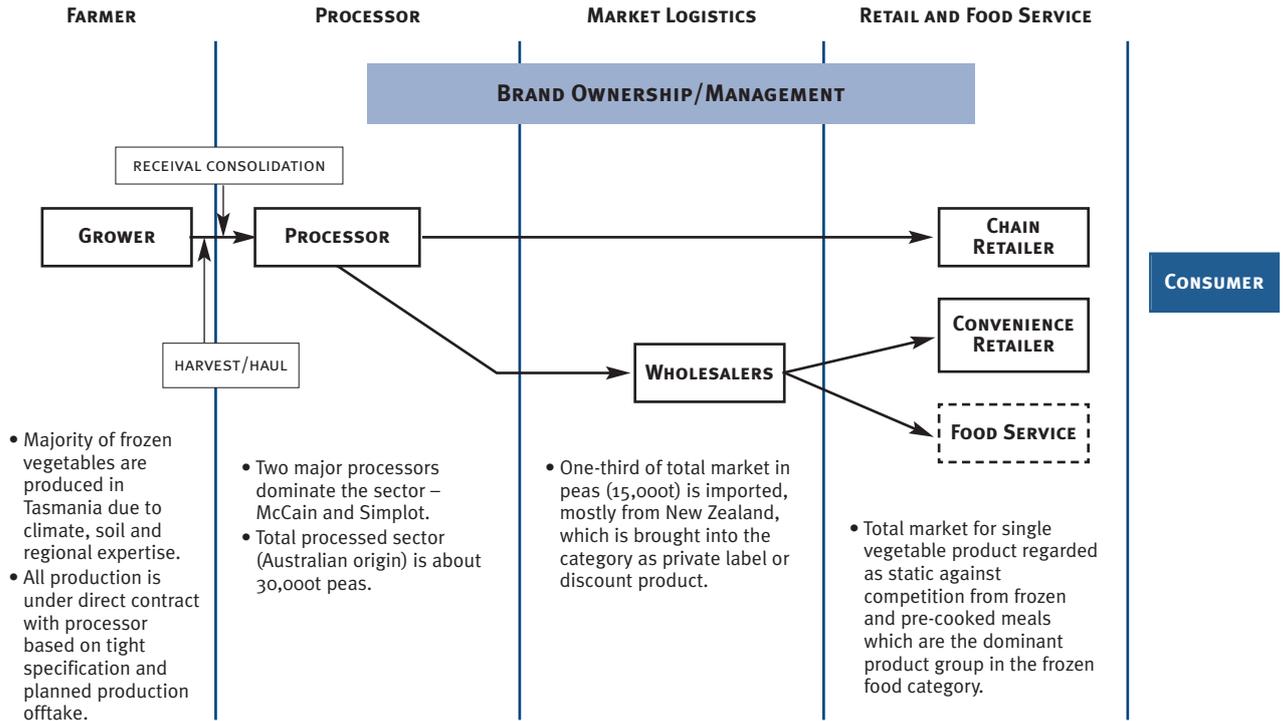
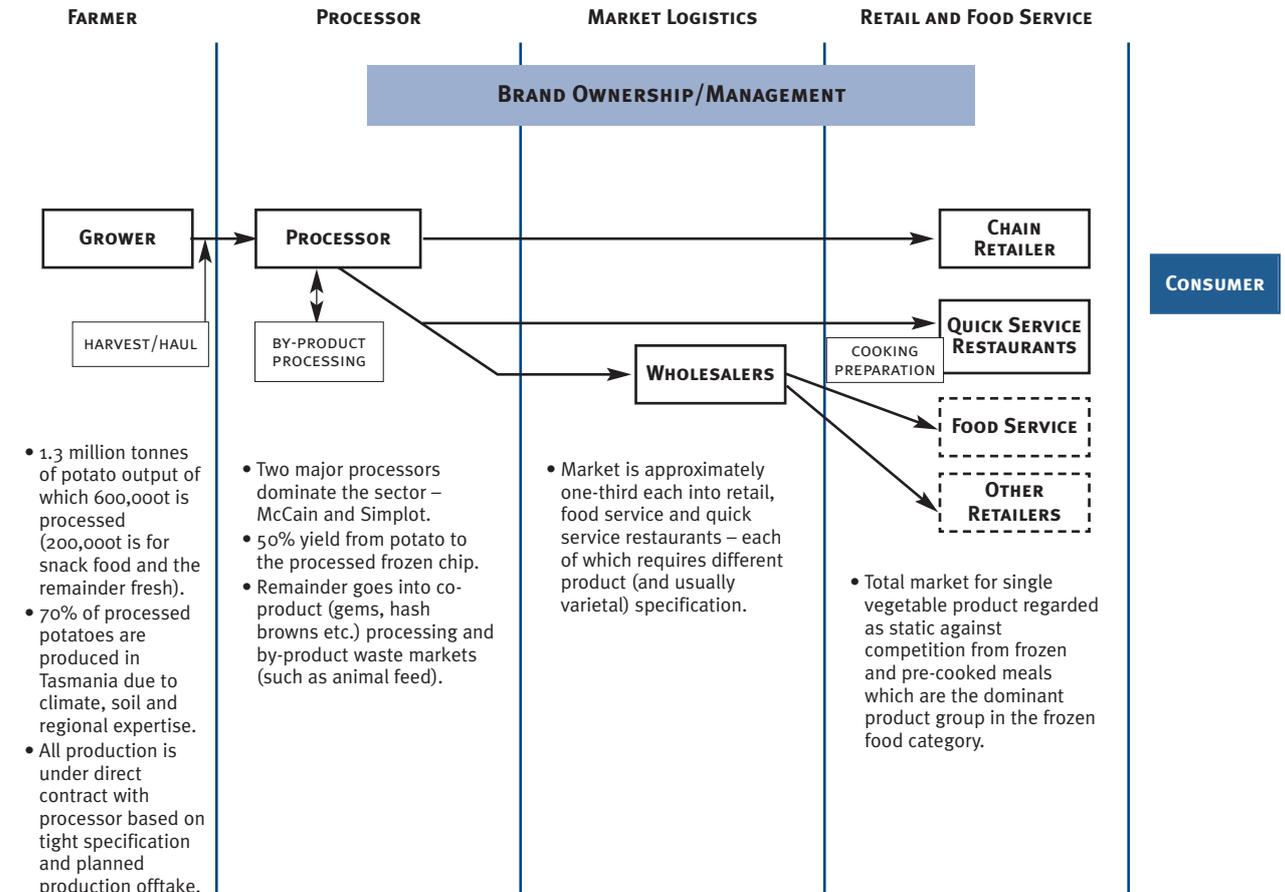


Figure 70. PROCESSED POTATOES, SUPPLY CHAIN MAP



FROZEN PROCESSED VEGETABLES – ANALYSIS OF PRICING

Background

Australia has a small frozen vegetable processing sector that services the products markets in frozen peas, beans and potato products.

The green vegetable sector is based in Tasmania, which has a low-cost production environment in a very reliable climate without water and heat issues which affect yield and quality, and a reliable skills base in growing.

Grower contracts

The supply of vegetables to processors for use in processed beans, peas and potatoes is made under supply contracts with processors. Suppliers are contracted to supply in certain time windows. Overall production is managed by the processor to maintain a supply profile that is in line with the needs of the business.

The contracts specify area, timing, yield performance, product specifications, price and terms. The contracts carry strict penalties for variation from specification to avoid wastage or poor yields through processing.

The major challenge facing producers in the regions supplying the vegetable processors has been the lack of price increase over time despite the perceived gains in the end price of the products.

There are high cost barriers to entry in the game – gaining access to land, technology, equipment and a contract. Limited land availability is another restriction.

Processors of these products have invested substantially in automation of processing to reduce the costs and increase yields.

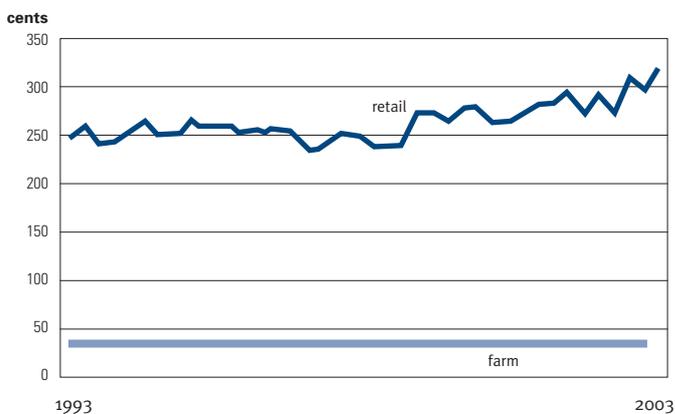
The approach taken

The only available data on the analysis of farmgate and retail prices in the processed frozen sector is that which compares the products on an equivalent basis in a snapshot approach.

Other than the reported retail prices for frozen products from the retail sector, there is little transparency in the information at wholesale and farmgate levels. While there is a time series of data at retail level for frozen peas (shown below), no such analysis exists for potato products. Anecdotal retail data is available in this regard.

In the case of peas, an imputed estimated average farmgate cost per kg of product has been used.

Figure 71. **RETAIL PRICES FOR FROZEN PEAS, CENTS/KG, 1993–2003**



Source: Industry sources and ABS

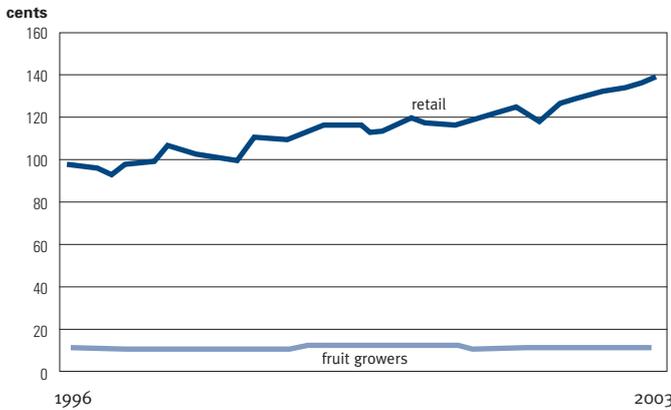
Price competition for domestically produced peas and beans comes in the form of imported product which is generally sold under private label, though imported brands. This maintains tight pressure on the scope for price increases to the processor, though the extent of margin pressure is unclear.

PROCESSED PINEAPPLES – ANALYSIS OF PRICING

The industry’s product mix

The majority of the annual pineapple crop is processed into a range of tinned and minimally processed products. It is estimated that the offtake of product by the major processor, Golden Circle, is about 70 per cent of total output.

Figure 72. **RETAIL AND FARMGATE PRICES FOR PINEAPPLE, 450G TIN, CENTS/TIN, 1996–2003**



Pricing of pineapples at the farmgate has historically been set according to production quotas. These were allocated by Golden Circle according to the level of supplier shareholding in the company. Supply rights were stapled to the shares. Through this mechanism, the company set pool prices for quota and non-quota supply where the quota allocation represented the majority of the company’s committed production requirements and the non-quota returns fluctuated as influenced by the world market for pineapples.

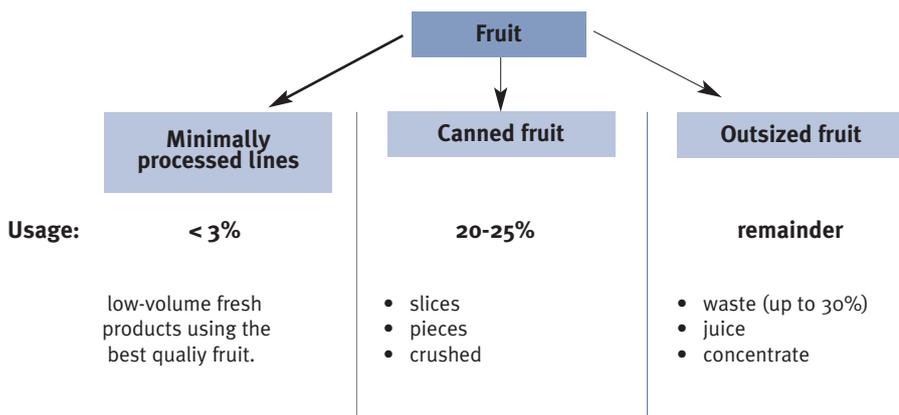
During this time, pineapple pricing was treated in a similar way to milk pricing by a cooperative. Pineapple prices were set as a key balancing item in the financial performance of the group. In 2001, the nexus between fruit prices and shareholding was broken and commercial prices were set for fruit in accordance with long-term supply contracts which contain specifications on supply commitments and product quality.

The pricing of product

The chart on the left shows the comparison between retail value (per ABS data) and the payment for fruit content in the tinned product. Fruit payments represent a small portion (less than 10 per cent) of the overall costs of the business given the diverse nature of the business of the company.

The sensitivity of margin analysis to the company and the industry prevents the disclosure of an analysis of the share of the retail dollar.

Figure 73. **USE OF RAW MATERIAL IN PROCESSING**



The overall use of raw material product through a fruit processing operation is balanced between the demand for fresh (minimally processed) lines, the usage of product which meets specifications for canning and optimising the use of oversized fruit in juice or concentrate. A significant portion (around 30 per cent) is disposed of as waste product, generally to the livestock sector as feed.

While retail prices for canned lines have steadily risen over time (at a rate close to 2 per cent per annum), the ability for the processor to extract sufficient returns across all uses of fruit has been limited due to the strength of competition in the drinks market (with imported concentrates accessible to industry) and the need to invest in products and market promotion to widen the product range. Costs of marketing, packaging and factory labour have increased over time at faster rates than price rises have allowed.

Figure 74. **FRUIT JUICE, CITRUS: MAJOR DRIVERS OF PRICES AND COSTS**

The juice processing channel has a major impact on the prices and costs in the citrus and apple industry value chains. The earlier overview showed its impact on those sectors. This figure overviews the juice sector itself as a standalone category.

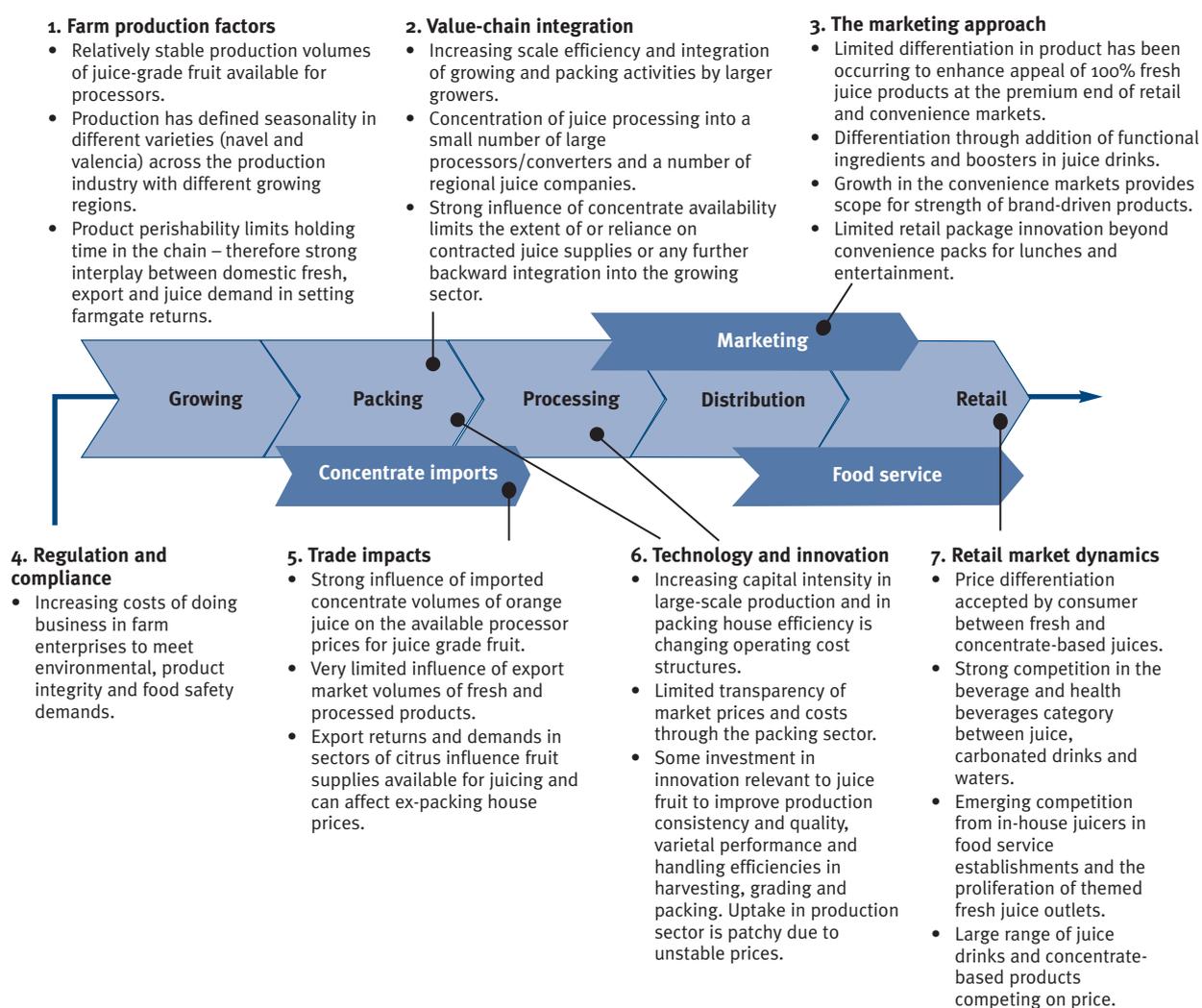
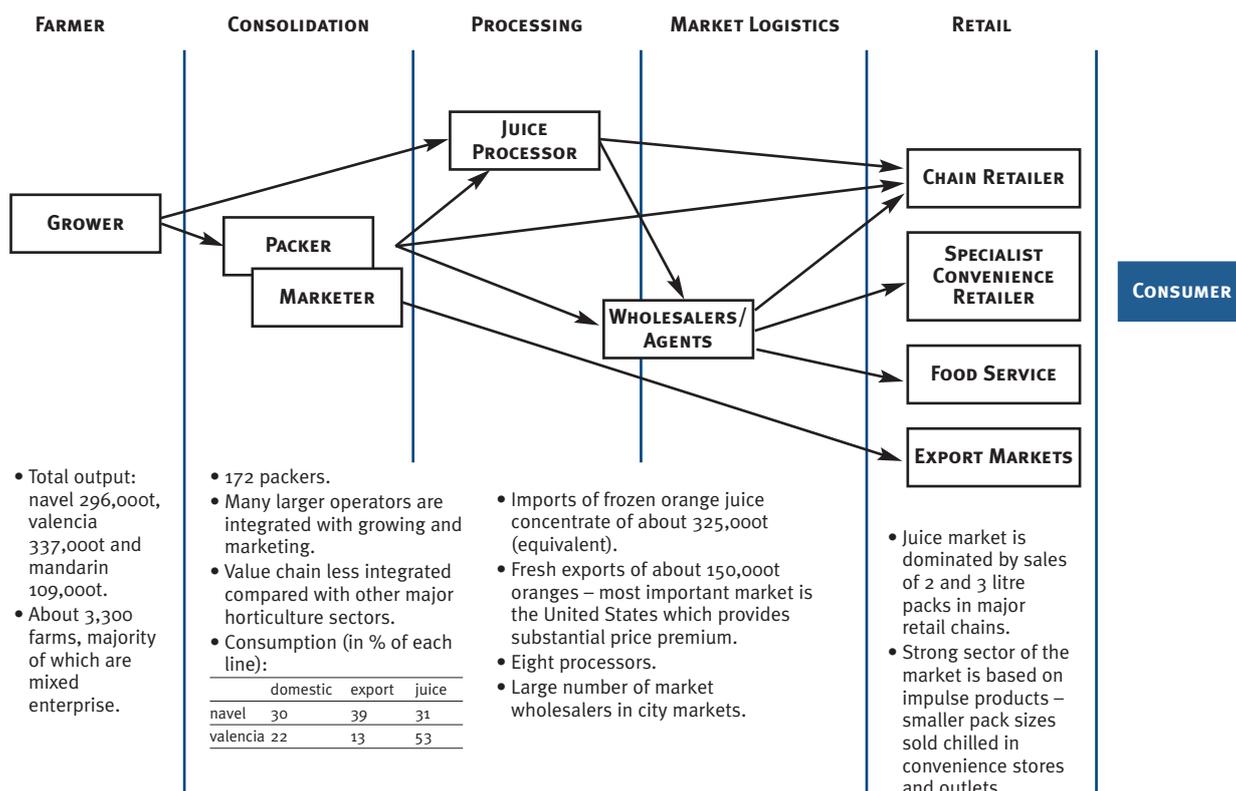


Figure 75. FRESH FRUIT, WITH JUICE, SUPPLY CHAIN MAP



JUICE PRODUCTS – ANALYSIS OF PRICING

Overview

Orange and other mixed citrus-based juices are major lines in the beverage category. In recent years the size of the juice category has increased with the greater consumer focus on health and nutrition, coupled with the greater use of nutritional additives (calcium, folates) to enhance the health image.

Juices compete with a wide variety of beverages and are subject to consumer price sensitivity in the beverages market at retail.

Whilst category sales have expanded, the share of business within the category between shelf-stable, chilled and long-life juices changes over time.

Fresh versus concentrate

There has been recent growth in 100 per cent fresh juice due to the improved promotion and labelling of the product and an improvement in the quality of the grown valencia fruit. This has given the processors greater confidence of supply to promote increased consumption. The consumer has demonstrated a willingness to pay higher prices for fresh juice compared to the alternatives, yet this is subject to tolerance levels relative to carbonated drinks and waters and other juice alternatives.

The impact of imported frozen orange juice concentrate has a significant bearing on the profitability of the juice industry. Reconstituted juice products have also grown in total market size, aided by the increased attractiveness of imported frozen orange juice concentrate from major low-cost producers such as Brazil.

Australia does not produce enough fruit to satisfy the total market demands of the domestic industry for reconstituted products. The improved access by the industry to fresh fruit export

markets has strengthened the focus of the industry on servicing fresh markets as a priority as local fruit is uncompetitive in frozen orange juice concentrate. Local juice fruit however retains a strong role through use in 100 per cent fresh juice products and an important role in blending part of the juicer’s concentrate needs – though this depends upon price competition.

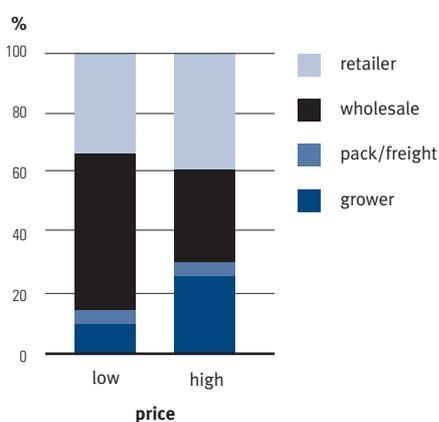
Margins through the chain

An illustration of the shares of the retail dollar for a fresh juice product was undertaken by Retailworks as part of the Productivity Commission review of the citrus industry. As in the case of fresh fruit, this identified low and high cases due to the wide variations that occur from time to time in the net price paid to the grower for fruit.

Those variations are due to:

- the available supply of juice acceptable for fresh juicing;
- the available fruit left for juicing from the fresh fruit market (and relative returns from the fresh market); and
- the prevailing price of frozen orange juice concentrate.

Figure 76. **SHARES OF DIFFERENT RETAIL PRICES, FRESH JUICE**



Source: Retailworks 2002

There can be significant fluctuation in the share of returns from season to season based on the above factors. In general, the supply of fresh fruit to the processing sector is regarded as a market of last resort by many in the growing sector. This is due to the impact on overall prices of the volatility of returns and the low prices that processors are willing to offer for frozen orange juice concentrate.