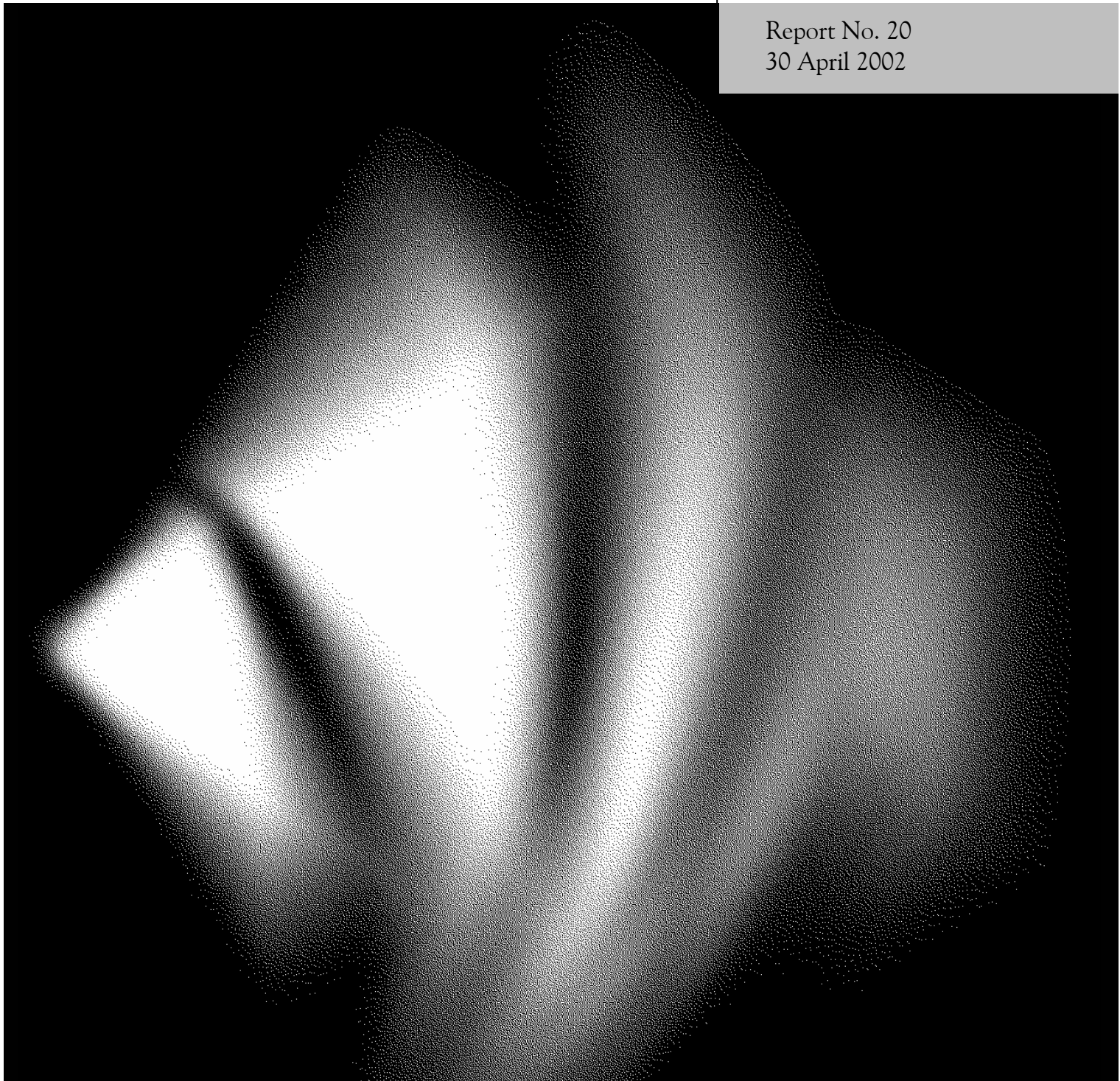




Citrus Growing and Processing

Inquiry Report

Report No. 20
30 April 2002



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The Productivity Commission

The Productivity Commission, an independent Commonwealth agency, is the Government's principal review and advisory body on microeconomic policy and regulation. It conducts public inquiries and research into a broad range of economic and social issues affecting the welfare of Australians.

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Terms of reference

I, Peter Costello, under Parts 2 and 3 of the Productivity Commission Act 1998, hereby:

1. refer for inquiry and report the competitive situation and outlook for the citrus growing and processing industry, taking into account:
 - (a) the financial conditions, including profitability, of the industry;
 - (b) trends in relation to demand and supply factors, including imports such as frozen concentrate orange juice;
 - (c) the competitiveness of the industry, including efforts taken by the industry to enhance competitiveness; and
 - (d) the impact and effectiveness of existing and recent Commonwealth/State policies and programs.
2. specify that:
 - (a) the Commission report on whether the circumstances are such that measures are necessary to enhance the competitiveness of the industry; and
 - (b) if so, what measures would be necessary and appropriate, including whether a formal safeguards investigation is warranted.
3. The Commission is to report within 6 months of receipt of this reference and is to hold hearings for the purposes of the inquiry.
4. The Government will consider the Commission's recommendations and the Government's response will be announced after the receipt of the Commission's report.

PETER COSTELLO

26 September 2001

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Abbreviations and explanations

Abbreviations

| | |
|--------|---|
| ABARE | Australian Bureau of Agricultural and Resource Economics |
| ABS | Australian Bureau of Statistics |
| ACCC | Australian Competition and Consumer Commission |
| ACG | Australian Citrus Growers Inc. |
| ACT | Australian Capital Territory |
| AFFA | Department of Agriculture, Fisheries and Forestry — Australia |
| AHC | Australian Horticultural Corporation |
| AHEA | Australian Horticultural Exporters Association Inc. |
| ANZFA | Australia New Zealand Food Authority |
| AQIS | Australian Quarantine and Inspection Service |
| AUD | Australian dollar |
| BA | Biosecurity Australia |
| CBSA | Citrus Board of South Australia |
| CPI | Consumer price index |
| DFAT | Department of Foreign Affairs and Trade |
| EFIC | Export Finance and Insurance Corporation |
| EVAO | Estimated value of agricultural output |
| FCOJ | Frozen concentrate orange juice |
| GST | Goods and Services Tax |
| HACCP | Hazard Analysis and Critical Control Point |
| HAL | Horticulture Australia Limited |
| HMAC | Horticultural Industry Market Access Committee |
| IRA | Import Risk Analysis |
| MAFF | Ministry of Agriculture, Forestry and Fisheries (Japan) |
| Medfly | Mediterranean fruit fly |
| MFC | Mildura Fruit Company |
| MIA | Murrumbidgee Irrigation Area |

| | |
|---------------|---|
| MVCMB | Murray Valley Citrus Marketing Board |
| NFC | Not from concentrate |
| NPPO | National Plant Protection Organisation |
| NPQS | National Plant Quarantine Service (Korea) |
| NRA | National Registration Authority |
| PIRSA | Primary Industries and Resources South Australia |
| Qfly | Queensland fruit fly |
| QFVG | Queensland Fruit and Vegetable Growers |
| R&D | Research and development |
| RC | Riverina Citrus |
| RIS | Regulation Impact Statement |
| SPS agreement | WTO's Agreement on the Application of Sanitary and Phytosanitary Measures |
| TSS | Total soluble solids |
| WTO | World Trade Organization |

Explanations

| | |
|-----------------|---|
| Billion | The convention used for a billion is a thousand million (10 ⁹). |
| Findings | <i>Findings in the body of the report are paragraphs highlighted using italics, as this is.</i> |
| Recommendations | <i>Recommendations in the body of the report are highlighted using bold italics, as this is.</i> |

Glossary

| | |
|--|---|
| Apparent consumption | An estimate of domestic consumption, calculated as the sum of the measured level of domestic production and imports less the amount of exports and changes in stocks. |
| Bearing trees | Trees that are aged six years and over. |
| Bound rate tariff | The tariff rate that is the maximum allowed under World Trade Organization rules. |
| Citrus industry | For the purpose of this report, the citrus industry includes citrus growers, packers and processors. It does not include enterprises related to the industry such as convertors (bottlers), exporters, importers and retailers of citrus fruit. |
| Cold disinfestation | A process to eliminate pests, such as fruit fly, from citrus fruit through storage at very low temperatures for a given period. |
| Convertors | Enterprises in the citrus supply chain that take processed products such as fresh juice, concentrate, dried products and oils then produce bottled/packaged products such as packed juices, fruit drinks and cordial. |
| Cost insurance and freight (cif) price | The price of a commodity that includes, in addition to the fob price (see below), the cost of insurance and freight. |
| Economies of size | A reduction in the unit costs of production with increasing size of operations. |
| Estimated value of agricultural output (EVAO) | An estimate of the value of agricultural production. It is an indicator of the extent of agricultural activity rather than an indicator of the value of receipts of individual farms. |
| Export control powers | Conditions placed on the export of citrus products into specific overseas markets. This may include assigning sole importer status to a particular enterprise in a certain export destination. |

| | |
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| Farmgate price | The price of an agricultural commodity at the farm level point of sale. A range of different interpretations of farmgate price are discussed in chapter 2. |
| Free-on-board (fob) price | The price of a commodity derived up to the point of shipment. It includes usual production and processing costs of the goods and the costs of preparing the goods for shipment, including loading the goods onto the vessel. |
| Fresh fruit equivalent | A measure of the amount of fresh fruit that would have been required to make a given quantity of FCOJ. |
| Fresh juice | This term is used interchangeably in the report with the term NFC. (See NFC for definition.) |
| Frozen concentrate orange juice (FCOJ) | A processed commodity that is prepared by dehydrating orange juice so that it is in a concentrated form. The concentrate is then frozen and can be stored for up to 24 months. To obtain orange juice from FCOJ, the product is thawed and reconstituted with water. |
| Import risk analysis | A process to determine the quarantine risks that are associated with importing plant and animal products. This process includes taking into account all available scientific evidence regarding the product in question to determine any necessary phytosanitary measures. |
| Imputed owner labour cost | An estimated value of the citrus establishment owner's own labour, which is used when it has not been included as an accounting cost. This concept is included to calculate the 'true' cost of production for a citrus establishment. |
| Integrated pest management | An approach to pest management that incorporates a number of techniques including: using chemical and biological sprays; changing the environment so that it is more favourable to predators and parasites; releasing natural and introduced predators and parasites. |
| Non-bearing trees | Trees that are less than six years of age. (See also bearing trees.) |

| | |
|-----------------------------------|---|
| Not from concentrate (NFC) | A description of fruit juice products not derived from FCOJ. This includes fresh juice without any preservatives, frozen fresh juice, fresh juice with preservatives and pasteurised fresh juice. |
| Over-run | Citrus that is not suitable for fresh-fruit domestic or export markets. This fruit may then be used for the production of products such as fresh juice or concentrate, or as stock feed or dumped/destroyed. |
| Phytosanitary measures | Measures taken to ensure that imported plant matter is safe for consumption according to the health standards considered 'safe' by the importing country. |
| Spillover benefits | Additional benefits that arise from an activity or production of a good or service that flow to those who are not directly involved in, or contributing to the costs of, the activity or production process. |
| Total soluble solids (TSS) | A measure of the sugar content of juice that indicates its quality and flavour. |
| Vertical linkages | Vertical linkages are agreements or understandings between enterprises at different stages in the production chain. They are developed to ensure adequate supply of competitively priced upstream product at different points on the supply chain. Linkages between enterprises may range from contracts through to common ownership of enterprises engaged in each stage of production (vertical integration). |

Key messages

- The citrus growing and processing industry has been expanding while experiencing significant change.
 - Demand for fresh fruit and fresh juice has increased strongly. These products absorb 85 per cent of total orange production.
 - The industry has become more export-oriented, with exports now representing one-quarter of total citrus production and almost half of the total value of production.
- At the same time, a substantial increase in low cost, high quality frozen concentrate orange juice from Brazil has resulted in reduced returns and financial problems for some local growers.
- Financial performance and competitiveness within the industry varies.
 - Growers who have adapted well to market developments have had the foresight and ability to invest in varieties of citrus or other horticultural products which are in demand.
 - Those who have found it more difficult to adapt have typically been those with significant proportions of oranges processed into concentrate. Many have small orchards and limited resources.
- Like many other agricultural enterprises, citrus growers face a number of risks — in particular, fluctuations in their income and lengthy pay-back periods on investment.
 - Certain characteristics of the industry, including the prevalence of non-citrus production on many farms, off-farm income and the increasing use of medium-term supply contracts, provide scope to manage many of these risks.
- The citrus industry's growth is impeded by some regulatory factors — such as high trade barriers in some overseas markets and costly labour market arrangements.
- The benefits of the sole importer arrangement in the United States tend to be overstated, because of the influence of other factors on returns from that market.
 - It is important that reviews of this and similar export control arrangements be conducted in a genuinely independent and transparent manner.
- The citrus industry has access to a range of general government support programs to improve its performance and facilitate adjustment to economic change.
- The Commission considers that additional industry-specific assistance is not justified:
 - much of the industry is already adapting successfully to change; and
 - the diverse nature and performance of farm households which grow citrus mean that such assistance would not target low-income problems efficiently or equitably.
- For these reasons and because a tariff increase would not provide much assistance to growers in difficulty, the Commission also considers that a safeguards investigation is not warranted.

Overview

This inquiry arose out of concerns about the commercial outlook for the Australian citrus growing and processing industry. The concerns are that some sectors of the industry are vulnerable to strong competition from imports, particularly of frozen concentrate orange juice (FCOJ), and that many growers have recently experienced low returns.

The Commission has been asked to examine the current situation and outlook for the citrus growing and processing industry. It also has been asked to examine whether any measures are necessary to enhance the industry's competitiveness and whether a formal safeguards investigation is warranted. In undertaking the inquiry, the Commission is required to take into account the financial conditions of the industry, trends in demand and supply, the competitiveness of the industry, efforts taken by the industry to enhance competitiveness, and the impact and effectiveness of existing and recent Commonwealth/State policies and programs. The general policy guidelines set out in the *Productivity Commission Act 1998* require the Commission to have regard to the overall interest of the Australian community. This means that the Commission has taken a broader view of the terms of reference for this inquiry than that advocated by some participants.

Australia's citrus industry

The citrus industry in Australia encompasses growers, packers and processors of citrus fruit.

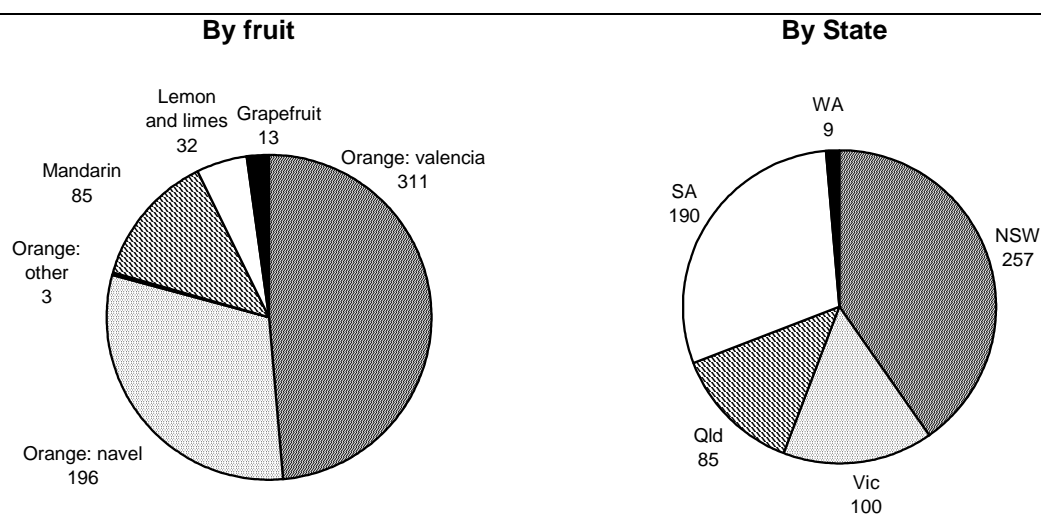
In 1999-2000, Australia produced 641 000 tonnes of citrus fruit, which had a nominal gross value of production of just over \$400 million. This represented 14.6 per cent of the total value of fruit produced and 1.3 per cent of the total value of agricultural production in Australia. The citrus industry is the second largest horticultural industry after the wine grape industry.

Australia grows a range of citrus fruit including oranges, mandarins, lemons, limes and grapefruit. The main markets for citrus are fresh fruit (domestic and export), fresh juice (domestic and export), and juice drinks manufactured from frozen concentrate juice.

Two dominant varieties of orange are grown — navel and valencia. The navel variety is largely consumed as fresh fruit in domestic and export markets (80 per cent), with the lower quality fruit mostly processed for FCOJ. Valencias are consumed as fresh fruit in domestic and export markets (around 35 per cent) and as fresh juice (55 per cent), with the remainder (10 per cent) processed into FCOJ. Mandarins are predominantly consumed as fresh fruit in domestic and export markets, with a small proportion processed into juice. Navels and mandarins attract higher prices than valencias because of their superior eating qualities.

Citrus production, 1999-2000

Kilotonnes



Source: Table 2.1.

Almost all of Australia's citrus is grown in the irrigation areas in South Australia around Berri and Renmark (Riverland), the Murrumbidgee Irrigation Area (MIA) of New South Wales around Griffith (Riverina), along the Murray River in southern New South Wales and northern Victoria (Sunraysia and Mid-Murray), and the Central-Burnett and Emerald regions of Queensland.

Adjustment to change

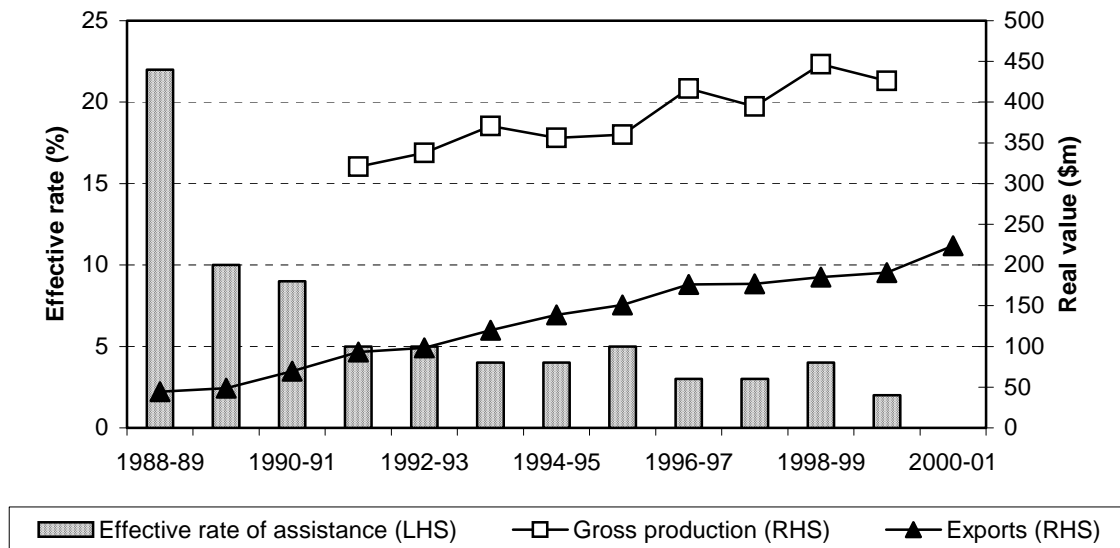
Like other sectors of the economy, the citrus industry has been going through significant structural change. Adaptation has been required in response to shifts in consumer tastes, increased opportunities to export fresh fruit and substantial growth in imported FCOJ — principally from Brazil, the world's most efficient producer — following reductions in government assistance.

Between 1989 and 1996, the tariff on imported FCOJ was reduced from 35 per cent to 5 per cent (its current level). This is the principal reason why the effective rate of assistance to the industry has declined from 22 per cent in 1989 to 2 per cent in 2000.

The available evidence indicates that many of the larger growers in the citrus industry have adjusted to the changes and remained financially viable by changing the mix of the varieties of citrus and of other crops that are grown and adopting improved horticultural practices.

The result has been that the real value of gross production has been increasing by just over 4 per cent per year between 1991-92 and 1999-2000, more or less in line with the growth of the national economy. The growth in the real value of exports has been even more impressive, at around 14 per cent per year between 1988-89 and 2000-01 — faster than the growth in Australia’s total exports of goods and services. These increases occurred at the same time as the number of establishments growing citrus declined by 8 per cent, to 3450, while the number of citrus trees increased from around 10.2 million to 11.1 million.

Production and exports, and the effective rate of assistance



Source: Figures 2.1 and D.1.

The market focus of the industry also has evolved over time, driven by Australia’s competitive advantage in fresh fruit and fresh juice, and competitive disadvantage in the concentrate market (due to climatic factors and the small scale of the industry). Local producers of fresh juice have natural insulation from imports because of the seasonality of citrus fruit and the high cost of transporting these

products. Australia can export high quality fresh navel oranges and mandarins when they are out of season in the northern hemisphere, including to Asian markets where it has the advantage of proximity. Exports now represent around one-quarter of total citrus production and nearly half of the total value of production.

Participants had differing views, however, on the capacity of the industry to continue to adjust. Some examples are presented below.

Participants' views on adjustment

The Australian Citrus Growers Inc. stated:

... the capacity of the growing industry to keep on investing in better varieties, more efficient production techniques and larger scale operations to ensure ongoing financial viability is reaching its limit. Without significant policy initiatives from government, the industry's continued contribution to regional and national income is at risk. (sub. 72, p. vii)

Leeton Shire Council said:

Obviously individual growers have made other initiatives and implemented other actions to improve their efficiencies ... the industry has been progressively making significant changes ... to improve its productivity, but they are still finding that even this is not enough. (sub. 23, p. 2)

Warren Muirhead, from Griffith, stated:

The plight of the citrus industry in the Riverina is of concern to the local community and Griffith can ill afford to lose this industry.

My concern is that the industry is unlikely to survive as it has in the past as a commodity focusing on the concentrate market. The hope for the future is that it will change to one that, through value adding, will create a new range of products sought after by consumers. We are told that the next generation will spend 85 per cent of their money on products that are yet to be developed.

... The Griffith community may well have a new vibrant industry if citrus growers encourage their representatives to spend more time talking to people knowledgeable in agribusiness, food technology and product innovation than politicians. (sub. 2, p. 1)

BGP International, an exporter of citrus, said:

The major difficulty facing some Australian citrus growers is their unwillingness or inability to focus production on the fresh fruit market. There is no prospect that Australian growers can ever compete with dedicated juice areas such as Brazil, whereas there is a world shortage of southern hemisphere navels and an expectation that this will become more acute in the future.

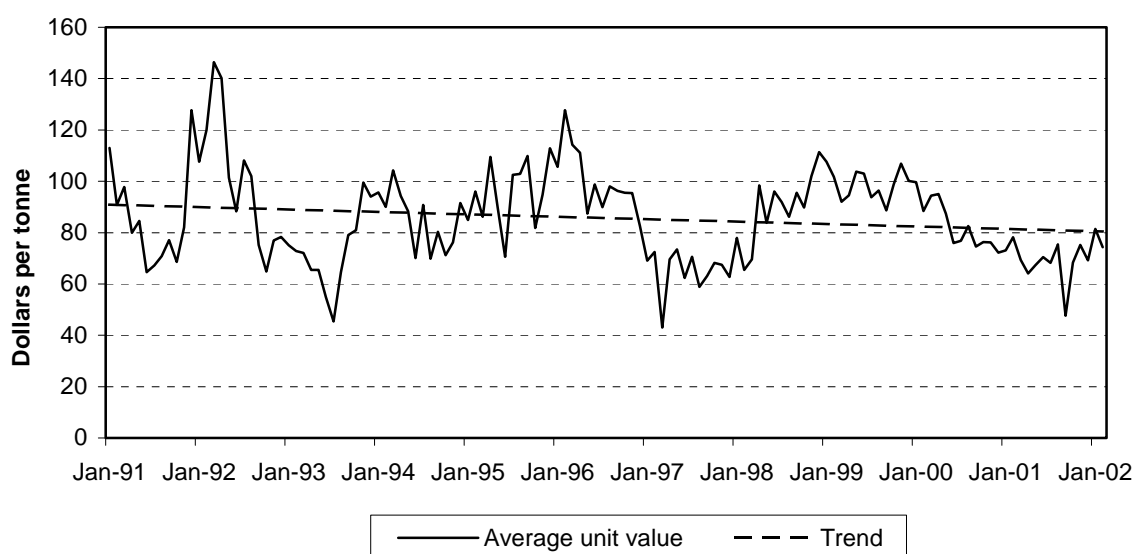
Protection of the citrus industry is not only unnecessary but over the past 20 years has been counter-productive in that it has delayed essential adjustment. (sub. 40, p. 1)

Impact of imported FCOJ on Australian citrus prices

The price of FCOJ has been fluctuating considerably around a declining trend, driven principally by supply conditions in Brazil, which accounts for around 80 per cent of international trade in this product.

Unit value of imported FCOJ

Fresh fruit equivalent



Source: Figure 2.8.

Although concerns have been expressed that the price of imported FCOJ determines prices received by Australian orange growers, the available evidence indicates that this is not the case. There is, however, some correlation in the price movements because of substitution at the margin between fruit supplied to the different markets.

The average farmgate price received by growers of oranges appears to be significantly higher than the price of imported FCOJ. Based on the Commission's estimates of prices, the prices of fresh navel oranges are substantially above that for imported FCOJ, principally because around 80 per cent of the crop is sold as fresh fruit in the domestic and export markets. Even for valencia oranges, the average farmgate price is at least twice that of the FCOJ price. There are, however, differences in the average prices between regions. The Riverina appears to have a greater share of its production being supplied for processing into fresh juice (based on the valencia orange), resulting in lower average prices than in the other regions.

As the Australian industry has reduced its dependence on the concentrate market, the impact of the imported FCOJ price on the prices received by growers has been

declining. Nevertheless, growers may still receive low prices for oranges supplied for processing into FCOJ. This is especially the case in years of high production.

Indicative farmgate prices for navels and valencias and imported FCOJ price

Dollars per tonne

| | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | 2001-02 |
|--------------------------------------|---------|---------|---------|-----------|---------|---------|
| Import (cif) | | | | | | |
| FCOJ (fresh fruit equivalent) | 81.1 | 71.6 | 97.8 | 94.8 | 73.6 | |
| Farmgate (average unit value) | | | | | | |
| <i>PC estimates</i> | | | | | | |
| Navel orange | | 455.5 | 577.6 | 407.7 | | |
| Valencia orange | | 159.0 | 303.1 | 218.8 | | |
| <i>Murray Valley region sample</i> | | | | | | |
| Navel orange | 425.0 | 309.0 | 650.0 | 596.0 | | |
| Valencia orange | 143.0 | 130.0 | 278.0 | 205.0 | | |
| <i>Riverina region, packer A</i> | | | | | | |
| Navel orange | 190.0 | 380.0 | 280.0 | 100.0 | 360.0 | |
| Valencia orange | 110.0 | 115.0 | 260.0 | 120.0 | 95.0 | 192.0 |
| <i>Riverina region, packer B</i> | | | | | | |
| Navel orange | | 462.0 | 512.0 | 160.0 | 435.0 | |
| Valencia orange | | 95.0 | 238.0 | 141.0 | 135.0 | |

Source: Tables 2.3 and 2.4.

2000-01 was an unusual year

The market conditions experienced by growers in 2000-01 were unusual due to a coincidence of factors, which saw increased supplies of domestic navels and valencias and of Brazilian FCOJ.

The world price of FCOJ was at a low point in the commodity cycle in 2000-01 because a bumper crop in Brazil led to high inventories and intensified competition between Brazilian suppliers of FCOJ. Australian users of FCOJ, who are becoming more reliant on imports, took advantage of the favourable buying conditions to lock in forward supplies of imported FCOJ at the unusually low prices.

Moreover, in 2000-01, the Australian valencia crop was unusually large. At the same time, a sizeable proportion of the Australian navel crop was unsuitable for export due to its poor quality and the small size of fruit. Consequently, over-supply occurred in the domestic fresh fruit market which meant that a larger proportion than normal of the total crop was diverted to the FCOJ market. Growers accordingly were paid the low spot price prevailing in the FCOJ market at that time.

The most recent information available indicates that the world price of FCOJ has risen again. In addition, the supply of valencias in the latest Australian season was lower, leading to a decrease in the proportion of the crop sold for processing into FCOJ. Further, the volume of fresh fruit exports is increasing. These developments are already leading to an improvement in the average prices received by growers in 2001-02, as indicated by higher unit values for valencias in the Griffith region compared with those achieved in the two preceding years.

Financial performance of growers

Information about the financial performance of establishments engaged in citrus growing, as well as on the cost of growing citrus, is very limited. In the time available for this inquiry, it was not possible to undertake a survey of citrus growers, packers and processors to obtain such information. Instead, the Commission has had to rely on available data from the MIA and Murray Valley regions, ABS data and other evidence provided by participants.

In assessing the financial performance of growers and of the industry as a whole, it is important to note that the great bulk of citrus production is undertaken by a relatively small proportion of growers. In 1997, 30 per cent of growers accounted for almost 90 per cent of the production of citrus, while 50 per cent of growers accounted for only 2 per cent of the industry's production.

Distribution of citrus production, 1997

| <i>Decile</i> | <i>Production</i> | <i>Proportion of total production</i> | <i>Cumulative proportion of total production</i> |
|---------------|-------------------|---------------------------------------|--|
| | tonnes | % | % |
| Lowest | 27 | 0 | 0 |
| 2nd | 394 | 0.1 | 0.1 |
| 3rd | 1 507 | 0.2 | 0.3 |
| 4th | 3 766 | 0.6 | 0.9 |
| 5th | 9 026 | 1.4 | 2.3 |
| 6th | 18 987 | 2.9 | 5.2 |
| 7th | 36 918 | 5.7 | 10.9 |
| 8th | 63 929 | 9.9 | 20.8 |
| 9th | 114 647 | 17.8 | 38.6 |
| Highest | 396 363 | 61.4 | 100 |

Source: Table 3.2.

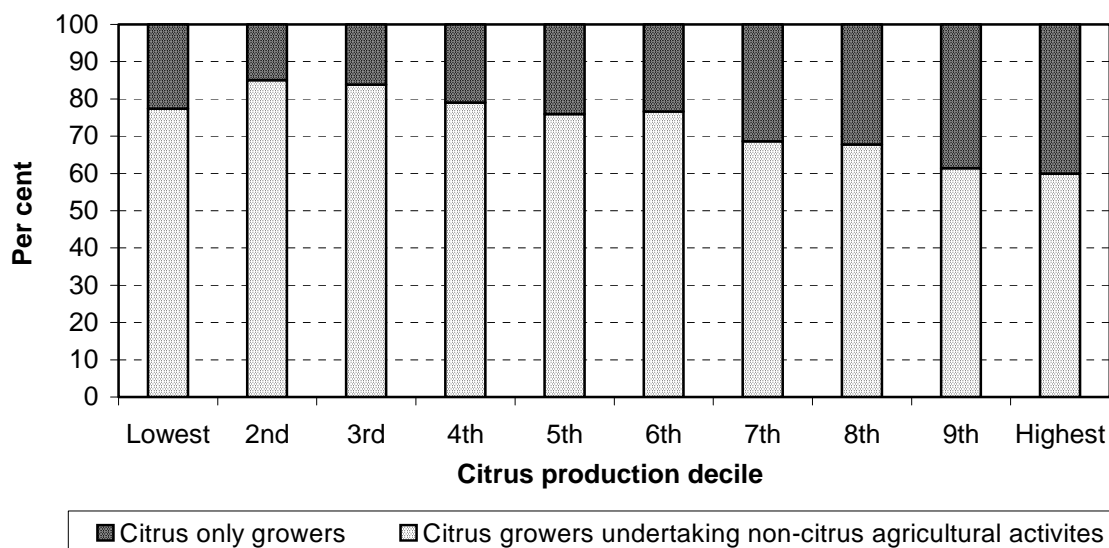
Another important characteristic of the citrus growing sector is that many of those engaged in it are not solely or even largely dependent on citrus. Most establishments also produce a wide range of other products, such as vegetables,

pears and apples, grapes, beef and nuts. Many households also earn off-farm income.

Furthermore, many small citrus growers appear to be more dependent on these other activities than they are on citrus. For example, the 50 per cent of growers with the lowest production of citrus in 1997 produced significantly greater quantities of apples, pears and stone fruit than of citrus. They also earned a larger proportion of their farm income from non-citrus products.

More than two-thirds of citrus establishments undertake agricultural activities other than citrus. For smaller citrus establishments, the proportion of growers engaged in non-citrus production is higher than is the case for larger establishments.

Pattern of production of citrus establishments, 1997



Source: Table 3.5.

More than a third of citrus establishments also have a total of around 15 000 hectares of grapes; almost 30 per cent of establishments also produced 34 000 tonnes of stone fruit; and 13 per cent also had 40 000 cattle.

Little evidence is available on the distribution of financial performance among businesses growing citrus. Some individual growers have provided the Commission with useful examples of their performance, but more comprehensive information would be necessary to assess the overall financial performance of the growing sector. Some information is available from small samples of growers in the Murray Valley and the MIA (although figures for the citrus and total farm businesses are not strictly comparable).

Profitability of citrus enterprises in the Murray Valley, 1995-96 to 2000-01

Dollars per hectare

| | <i>Citrus part of business</i> | | | <i>Total farm business</i> | | |
|-----------|--------------------------------|-------------|-------------------------|----------------------------|---------------|-------------------------|
| | <i>Lowest quartile</i> | <i>Mean</i> | <i>Highest quartile</i> | <i>Lowest quartile</i> | <i>Median</i> | <i>Highest quartile</i> |
| 1995-96 | na | -2 501 | na | -228 | 1 440 | 7 272 |
| 1996-97 | na | -820 | na | -1 325 | 1 014 | 6 995 |
| 1997-98 | -6 062 | -1 867 | 277 | -2 891 | 456 | 4 951 |
| 1998-99 | -3 785 | 123 | 2 708 | -1 725 | 1 658 | 7 071 |
| 1999-2000 | -3 470 | 1 157 | 4 805 | na | na | na |
| 2000-01 | -6 076 | -903 | 2 653 | na | na | na |

Source: Tables 3.6 and 3.9.

Several observations can be made about the profitability of citrus enterprises on the basis of these results.

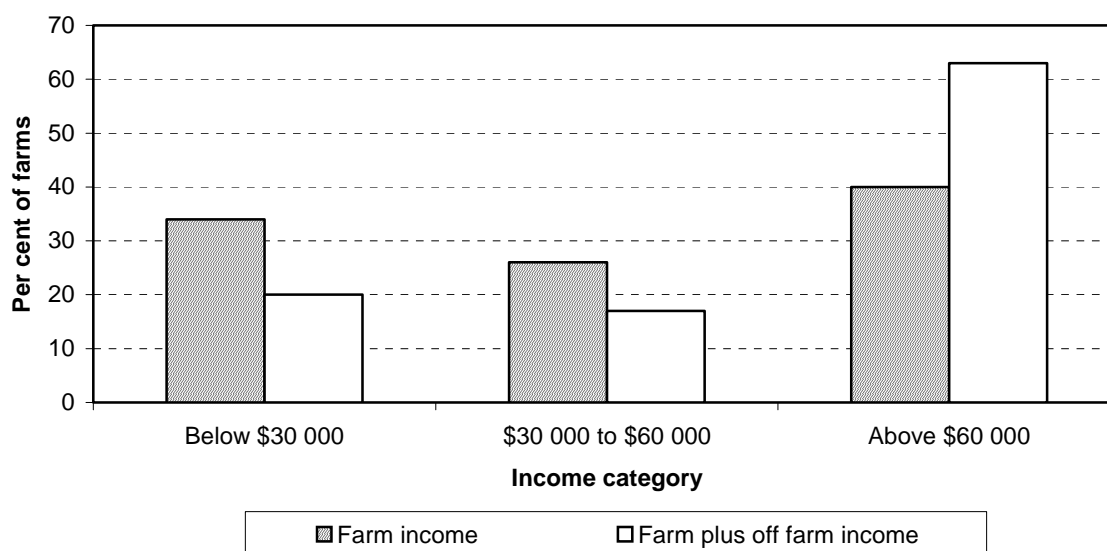
First, on average, the sample of citrus businesses experienced losses in four of the most recent six years.

Second, there is variability in profit, both over time and between businesses, for the citrus part and the total farm business. Some businesses did well in recent years, as indicated by the average profitability of the highest quartile. Others did not (lowest quartile). This divergent performance indicates that market conditions are not the only factor affecting grower profitability. Consequently, there appears to be scope for less profitable growers to do better. Because of the increasingly information-intensive nature of citrus production and marketing, good management and a close orientation to markets are key ingredients for success.

Third, for many, the profit of the entire enterprise and therefore the income of the household it supports, are not solely dependent on the profitability of the citrus component because the business grows crops other than citrus; as noted, many households also earn off-farm income, which raises the overall level of income. For example, when off-farm income is taken into account, the proportion of households earning below \$30 000 per year in 1998-99 declined from 34 per cent to 20 per cent and the proportion earning above \$60 000 per year increased from 40 per cent to 63 per cent.

More broadly, the indications are that most of the larger businesses in the citrus industry are profitable. Some smaller citrus growers appear to be reliant on off-farm income to finance expansion or, in some cases, merely to cover living expenses. Most of them, however, are also engaged in non-citrus agricultural activities, which are often a more important source of income. Such diversity of production is common in Australian agriculture.

Distribution of farm household income in the Murray Valley, 1998-99



Source: Table 3.10.

Another potential source of wealth for owners of citrus farms arises from changes in land value. There is evidence that land values for a typical citrus property in Griffith increased at an average annual rate of 10 per cent between 1996 and 2001. Rises in land values of 5 per cent per annum between 1995-96 and 2000-01 were also reported in the surveys of citrus farms in the Murray Valley. Property values in the mandarin-growing region of Mundubbera and Gayndah in Queensland have also been increasing.

Is citrus-specific adjustment assistance appropriate?

Structural change is a feature of all sectors of the economy. It reflects adjustments made by firms in response to continual changes in market conditions — such as movements in input costs and output prices, the development of new products and new technologies, the behaviour of competitors, shifts in consumer tastes and social attitudes — and changes in government policies. Such adjustments are essential if the community is to capitalise fully on its resource base and provide higher living standards.

In most industries, there are both expanding and contracting firms. Simultaneous entry and exit of firms in a single industry is also normal. The citrus industry is no exception. The available evidence indicates that the industry is adjusting by increasing its focus on the higher value markets for fresh fruit and fresh juice, in which Australia has a competitive advantage. At the same time, it is decreasing the proportion of oranges processed into FCOJ, where Australia is uncompetitive. This

has meant difficult adjustment for some growers, including departures from the industry.

A number of participants stated that an industry-specific adjustment assistance package is essential to ensure the industry's capacity to compete in a highly distorted trading environment. The adjustment package proposed by the Australian Citrus Growers Inc. included a safeguard investigation (under World Trade Organization (WTO) rules on international trade) into imported FCOJ, and grants and low interest loans for:

- reworking and replanting of citrus trees;
- adopting innovative technologies relating to cultural practices and harvesting;
- acquiring land to increase farm size; and
- paying farmers to exit citrus growing (and agriculture) or to remove their citrus trees.

The view was also put that many establishments growing citrus have areas of citrus that are too small to be viable in the long term, and therefore would be unable to continue to rely wholly on citrus for their household income.

The Commission considers that the case for specific adjustment assistance of the kind sought by the industry is likely to be strongest where changes in the economic environment:

- impose a clear and sizeable burden on a specific group (particularly if the affected group is relatively disadvantaged);
- deliver benefits mainly to relatively advantaged groups in the community; and/or
- are largely unanticipated (they occur with limited notice) and involve material changes to a well defined and defensible 'property right'.

Some implementation issues

One difficulty posed by a proposal for specific adjustment assistance stems from the fact that the majority of citrus growers are not specialist producers solely dependent on citrus for their household income. This diversity of sources of income complicates the task of focussing support on those genuinely in need.

Another potential difficulty arises from the variations in grower performance. The evidence suggests that many growers have adapted well to market developments and are profitable. Typically they understand better the changing requirements of

their customers and have the capacity to invest in varieties of citrus or other horticultural products which are in greatest demand.

The available evidence also suggests that those who have found it more difficult to adapt tend to be those who have a higher proportion of their production processed into FCOJ. It appears to be the case that the least profitable growers have small orchards and limited resources.

In this context, the role of government is not to ensure that every farm (or non-farm) business provides adequate income for its household or to ensure that an adequate income can be earned from growing a specific commodity, such as citrus. This would diminish incentives for good performance by transferring the inherent business risks from the owners of the businesses to taxpayers.

Like many other agricultural enterprises, citrus growers face a number of risks — in particular, fluctuations in their prices and crop yields and lengthy pay-back periods on investment in trees. The industry argued that assistance is needed to deal with these risks.

Certain characteristics of the industry, however, including the prevalence of non-citrus production on many farms (especially those that are small producers of citrus) and the increasing use of contract labour and medium-term supply contracts, provide scope to manage many of these risks.

The relatively large size of the regional economies in and around the main citrus growing regions of Griffith and Mildura also facilitates access to other sources of income. Many other industries, both agricultural and non-agricultural, are important in these regions.

It is important also to distinguish between persistent and temporary income problems. A farm that is unprofitable in a bad year may do well in a good year. Short-term fluctuations in profit and income are a normal feature of Australia's agricultural sector, and periods of relatively low income are to be expected. Movements in cash incomes in particular years can be a misleading indicator of longer-term financial viability.

A broader problem is that assistance that focuses narrowly on specific commodities, such as citrus, can distort farm business decisions, with possible adverse effects on the efficiency of the sector. For example, such assistance has the potential to influence decisions about competing investments (such as citrus in preference to other horticulture). It can also result in inequities between similarly placed farms in different industries, and delay inevitable adjustment. The cost of administering such assistance can be relatively high. Where possible, it is preferable to implement

programs that are generally available to those who meet the eligibility criteria regardless of the sector.

Generally available assistance

The general agricultural assistance programs available across the agricultural sector, including to citrus growers, are intended to facilitate adjustment and ease transitional pressures. They address a number of problems that are similar to those faced by farmers generally. Specifically, the programs:

- provide support to farmers to help them make informed decisions about their business prospects (for example, FarmBis, Rural Partnership Program, and the Rural Financial Counselling Service provide support for professional advice in three areas: the financial viability of farms, identifying ways to improve viability, and career choices);
- provide assistance for unviable businesses to leave agriculture before farm assets are depleted, giving owners greater control over their future (for example, Farm Help and the Rural Partnership Program); and
- provide support to deal with the tax implications of variability of farm income (tax averaging and the Farm Management Deposit scheme).

It is the Commission's view that these programs have facilitated necessary adjustment in the citrus industry.

The Commission has not been provided with evidence to suggest that those citrus growers who meet the eligibility requirements of the assistance programs have been unable to gain access to the programs. If such evidence were to become available, the Government would need to reconsider the level of funding provided to these programs.

The generally available measures, such as the social security and labour market assistance programs, and the general agricultural assistance measures, are preferable to industry or commodity-specific schemes because they are more likely to:

- treat individuals in similar circumstances equally;
- target assistance to those in genuine need whatever the cause;
- address the net effects of varying influences; and
- support individuals and families rather than a particular industry or activity.

After due consideration of the evidence presented to the inquiry, the Commission is unable to conclude that the citrus growing industry is experiencing circumstances

sufficiently different from those of other agricultural industries to warrant an industry-specific adjustment package.

For all of the foregoing reasons, and in view of the diverse nature and performance of agricultural activities in the citrus growing regions, the Commission considers that the generally available assistance measures are a more efficient and equitable means of achieving the Government's economic and social goals in these regions than an industry-specific program would be.

Is a formal safeguards investigation appropriate?

The terms of reference direct the Commission to report on whether a formal safeguards study under the rules of the WTO is warranted for the citrus industry. Such a study is required before a WTO member country can impose temporary tariffs (above bound levels) or import quotas in order to alleviate serious injury to a domestic industry arising from an increase in imports.

In addressing the terms of reference, the Commission has not evaluated whether a safeguard inquiry would be likely to find that grounds exist for safeguard action. That could prejudice the findings of such an inquiry. Rather, the Commission has examined whether an increase in barriers to imports of FCOJ, which could be recommended by a safeguards inquiry, would be an effective policy response to the challenges facing sections of the citrus industry.

The Commission is of the view that an increase in the barriers to imports of FCOJ would not serve this purpose.

For the declining number of growers more dependent on income from fruit supplied for processing into FCOJ, a very high tariff (or a very restrictive import quota) would be required to have any significant effect on farm income. This is partly because the price-raising effect of a tariff would be diluted by overseas transport costs, since tariffs are applied on the free-on-board price of goods. More importantly, however, given the reported size of the gap between Australian production costs and the import price of FCOJ, a very large rise in the domestic price of FCOJ would be needed to make producing citrus for FCOJ profitable.

Moreover, an increase in the tariff on FCOJ would be a very blunt way of providing assistance to the needier sections of the citrus industry because it would assist any growers who supplied citrus for processing into FCOJ, regardless of the profitability of their total citrus enterprise. A tariff would also have the effect of reducing the incentive for growers to focus on supplying the fresh fruit and fresh juice markets and delay the inevitable further restructuring of the industry.

Many farmers specialising in citrus obtain most of their income from sales of fruit to the fresh fruit and fresh juice markets in Australia and overseas, where import competition is not great. A higher tariff on FCOJ would be unlikely to have much effect on the prices of fruit supplied for these purposes. Likewise, the income derived by many citrus growers from non-citrus crops and off-farm income would be unaffected by an increase in barriers to imports.

A substantial increase in the tariff on imported FCOJ also would run the risk of invoking a reaction from Brazil. The value of Australia's total exports to Brazil is significantly higher than the value of its imports of Brazilian FCOJ. As acknowledged by the main grower representative bodies and others in the industry, such a tariff increase could also jeopardise Australia's broader objectives in the current WTO round of multilateral trade negotiations.

Impediments to industry performance

Although the citrus industry has been growing, its performance is hampered by a number of impediments. Among those cited by participants were:

- government-related impediments to international trade (including market access restrictions and export controls) that make it difficult to export citrus products;
- labelling practices of some producers that mislead consumers about the content of some products, especially fruit juices;
- under-investment in research and development and in marketing activities;
- limited availability and increasing cost of some key inputs (notably labour); and
- perceived imbalances in negotiating power along the supply chain, favouring large processors and the large retail chains at the expense of growers.

Many of these potential impediments are not unique to citrus growing and processing. For example, difficulties in negotiations with buyers could occur in other sectors of the horticultural industry, which is often characterised by a large number of small growers and a small number of large buyers. Upward pressure on input costs is also common, not only in other horticulture industries, but across the economy.

Existing institutional regimes and arrangements provide effective ways to deal with most of these issues. For example, in terms of potentially misleading labelling, producers of citrus products are subject to government regulation and legislation, industry self-regulation and market scrutiny. As regards potential buying power issues, growers may be able to utilise the recently developed Retail Grocery Code that aims to assist primary producers in the supply chain relationship. Alternatively,

growers could seek authorisation under existing trade practices legislation to bargain collectively over farmgate prices in negotiations with large buyers if they see a need for greater balance in negotiations. In any event, the increasing opportunities in export markets would serve to diminish any market power held by large buyers in domestic markets.

Under existing arrangements, there is also some scope to undertake additional activities if the benefits exceed the costs. For example, voluntary codes of practice exist, and have been used successfully for labelling of juice products. The Commonwealth Government matches compulsory industry levies and voluntary contributions for research and development up to a certain level. The industry could fund increased research and development (by increasing the levy or through additional voluntary contributions) if it expected it to yield a net benefit.

Impediments to international trade

The citrus industry continues to face a challenging environment in some export markets for fresh fruit and fresh juice with respect to high tariffs, quarantine barriers and government subsidies. These impediments to international trade may limit the ability of Australian producers to exploit opportunities in export markets. Although progress is being made in reducing these barriers, tariffs and quarantine requirements remain a concern in some overseas markets.

RECOMMENDATION 7.1

The Government should use the opportunity provided by the current multilateral trade negotiations in the World Trade Organization to seek further reductions in overseas trade barriers faced by citrus producers.

Biosecurity Australia is responsible for technical discussions on quarantine barriers to international trade. The citrus industry has raised concerns about Biosecurity Australia's performance, including the way it proceeds with technical discussions, the time taken and the outcomes. The industry's perceptions of delays in the processing of requests for market access may in part be based on overly optimistic expectations, as technical discussions and the associated scientific trials and consultation can be time-consuming.

However, it appears that there are deficiencies in the processes established for setting priorities for market access and in conveying information to growers on the status of technical discussions and their expected completion dates. The Horticultural Industry Market Access Committee and Biosecurity Australia could address these issues by clarifying their roles and responsibilities and reviewing the effectiveness of priority-setting processes to ensure that they reflect commercial

opportunities. The current review of the Horticultural Industry Market Access Committee provides an opportunity to address these matters.

RECOMMENDATION 7.2

Biosecurity Australia and the Horticultural Industry Market Access Committee should review the effectiveness of the current processes for setting priorities for market access discussions, in order to ensure that the identified priorities reflect commercial opportunities.

RECOMMENDATION 7.3

Biosecurity Australia and the Horticultural Industry Market Access Committee should clarify their roles and responsibilities for conveying information to interested parties on the status of current market access discussions, including their anticipated completion dates.

Participants made extensive comments on the effectiveness of existing export controls — in particular, on the conditions placed on citrus exports to the United States, which require the use of a single designated importer. The great majority, but not all, disagreed with the Commission’s reservations about the effectiveness of the arrangements for exports to the United States presented in the position paper. The citrus industry generally believes that these arrangements have brought substantial benefits and are crucial to its future. Export control arrangements are also applied in three other markets.

Export control powers

Export control powers apply to the marketing of citrus in four countries — the United States, Taiwan, Thailand and the Republic of Korea. These arrangements were introduced in June 1992 in respect of the US market.

Export control arrangements vary according to the country concerned. In the case of the United States, citrus exporters must use a single importer. In the other three countries, the number of licensed importers with which Australian exporters must deal varies from three to 14.

According to the citrus industry, these controls have been in place, inter alia, in order to maintain Australia’s reputation as a supplier of premium quality fruit and to achieve higher prices.

The Commission notes that export licensing may be appropriate in certain, narrowly-defined circumstances. For example, by restricting quantities exported, Australian growers may capture premiums in export markets where Australia has market power. However, there are likely to be very few, if any, citrus markets

around the world where Australia has any significant power — particularly in view of the real threat of competition from other southern hemisphere suppliers. For example, South Africa is beginning to make inroads into markets, such as the United States, where Australia until recently had a near monopoly supply of navel oranges in the northern hemisphere off-season. This competition will make it more difficult to sustain high export prices, which could make it sensible for Australian exporters to increase the volume of exports to the United States.

Many of the benefits often attributed to the use of the sole importer arrangement for the United States (such as managing supply logistics, reducing marketing and distribution costs or product branding) can also be achieved through other means. These include regulated arrangements within Australia of quality standards and export volumes (as in the case for exports of several other agricultural industries) and possibly voluntary arrangements. Furthermore, the present arrangements could impose costs on the industry, primarily through the loss of market opportunities and/or the loss of flexibility in responding to change. Mandatory regulation requiring use of a single importer in the United States is likely to mean that any market premiums would be shared with the importer rather than being obtained fully by Australian exporters.

Moreover, some of the benefits attributed to the export control arrangements are not directly related to its use. In particular, the entire increase in prices received by growers for sales in the US market since 1996 reflects the decline in the value of the Australian dollar.

For the above reasons, it is not clear that existing export control arrangements for citrus products into the United States are in the interests of the Australian citrus industry, or of the community more broadly. This reinforces the need for periodic independent and transparent reviews. Reviews of these arrangements have been foreshadowed. For example, there is to be a three year review conducted by Horticulture Australia Limited and the Department of Agriculture, Fisheries and Forestry — Australia, in consultation with key industry groups. The focus of the review is to be on the need to retain the power in order to provide net public benefits.

The Commission notes, however, that Horticulture Australia Limited is the agency responsible for administering the export control powers and has the peak citrus grower body as one of its shareholders. Accordingly, it should not be regarded as a suitably independent body to conduct such reviews. It is a well established principle that those who develop policy should be different from those who administer it. This does not mean that citrus growers, their representatives and Horticulture Australia Limited should have no input to reviews. They would be able, like others

with an interest in the arrangements, to present evidence and opinions to the independent review panel.

RECOMMENDATION 7.4

Export controls should only be used in those markets where independent reviews can demonstrate, on the basis of clear criteria, that such powers generate benefits which exceed the costs and which cannot be achieved without the powers.

RECOMMENDATION 7.5

Future reviews of export control arrangements should be conducted in an independent and transparent manner, including effective consultation with all interested parties. Assessment criteria and the results of the review should be publicly available, together with the reasons for recommendations.

Cost and availability of labour

The increasing cost of, and the industry's difficulty in attracting, labour clearly affect the citrus industry. However, it is difficult to see how these effects are different from those faced by other labour-intensive parts of the agricultural sector. Cost inflation generally in Australia is now much lower than it has been for several decades. In addition, the degree to which increasing labour or other input costs result in increases in unit costs of production depends on the productivity offsets that are achieved.

Nevertheless, government policies in areas such as immigration, workers' compensation and superannuation can place an increasing compliance cost burden on farmers. The seasonal nature of much of the labour used in the citrus industry, together with the high rate of labour turnover, are relevant in this context. However, the impact of these policies also extends well beyond the citrus industry.

RECOMMENDATION 8.1

In making and reviewing superannuation, workers' compensation and immigration policies, Commonwealth, State and Territory Governments should take into account the potential compliance costs for citrus and other horticultural producers. For example, periodic increases in the Superannuation Guarantee threshold (below which payments to employees are exempt) in line with wage rises would maintain the real value of the threshold while easing compliance costs for citrus growers.

Outlook for the industry

The outlook for citrus growers and processors engaged in the markets for fresh fruit and fresh juice (both domestic and export) is generally perceived to be favourable. Australia appears not to have a competitive edge in the supply of fruit for processing into FCOJ because of the lower price and better quality of imports from Brazil. Some Australian fruit may be supplied for processing into FCOJ, but this is likely to be the fruit unsuitable for, or excess to the requirements of, fresh juice and fresh fruit markets.

In order to compete successfully in the fresh fruit and fresh juice markets, it is generally accepted that growers need to continue to adopt production methods which raise the overall quality of fruit grown. Growers need to be well in touch with the requirements of consumers and many farms may need to be larger in size and more productive to prosper in the more competitive environment.

It is likely that the processing sector will continue to look to new ways of securing the necessary quantity and quality of fruit for fresh juice — such as the use of contracts with growers covering both quantity and price, and direct ownership of orchards. The need for this is likely to arise from growers switching away from valencia oranges (the preferred juicing variety) to navels and mandarins (the preferred fresh fruit varieties), as they focus increasingly on supplying fresh fruit markets. This may lead to higher average prices for juicing oranges. These developments highlight the dynamic nature of market conditions and the need for growers and processors to be conscious of the likelihood of changes in demand and supply.

The future of the industry appears to be in fresh fruit and fresh juice. Competition from other suppliers (such as South Africa) in those markets, however, is likely to emerge as production by other countries rises and technological developments occur which lower transport costs and extend the life of ‘fresh’ juice. Exchange rate movements will also have important effects on exporters.

Overall, the Australian industry has clear potential to continue to expand by further exploitation of opportunities in domestic and export markets. With adjustment to changed market circumstances proceeding, there is reason to be optimistic about the industry’s future.

Recommendations

Chapter 7 Potential impediments to international trade

RECOMMENDATION 7.1

The Government should use the opportunity provided by the current multilateral trade negotiations in the World Trade Organization to seek further reductions in overseas trade barriers faced by citrus producers.

RECOMMENDATION 7.2

Biosecurity Australia and the Horticultural Industry Market Access Committee should review the effectiveness of the current processes for setting priorities for market access discussions, in order to ensure that the identified priorities reflect commercial opportunities.

RECOMMENDATION 7.3

Biosecurity Australia and the Horticultural Industry Market Access Committee should clarify their roles and responsibilities for conveying information to interested parties on the status of current market access discussions, including their anticipated completion dates.

RECOMMENDATION 7.4

Export controls should only be used in those markets where independent reviews can demonstrate, on the basis of clear criteria, that such powers generate benefits which exceed the costs and which cannot be achieved without the powers.

RECOMMENDATION 7.5

Future reviews of export control arrangements should be conducted in an independent and transparent manner, including effective consultation with all interested parties. Assessment criteria and the results of the review should be publicly available, together with the reasons for recommendations.

Chapter 8 Potential impediments in domestic markets

RECOMMENDATION 8.1

In making and reviewing superannuation, workers' compensation and immigration policies, Commonwealth, State and Territory Governments should take into account the potential compliance costs for citrus and other horticultural producers. For example, periodic increases in the Superannuation Guarantee threshold (below which payments to employees are exempt) in line with wage rises would maintain the real value of the threshold while easing compliance costs for citrus growers.

Findings

Chapter 2 Citrus markets

FINDING 2.1

Most Australian oranges are sold in the fresh fruit and fresh juice markets. The share of the total orange crop used to produce frozen concentrate orange juice (FCOJ) is relatively small, at around 15 per cent.

FINDING 2.2

Although growers receive a low price for oranges processed into FCOJ, the average price received by growers for their total orange crop is substantially above the FCOJ fruit equivalent price. Regional differences in types of citrus production mean that the margin between average prices and the FCOJ price varies across regions.

FINDING 2.3

The price of FCOJ imports has a direct impact on prices of Australian oranges sold for processing into FCOJ, but does not determine the price of all oranges. It does, however, exert some influence on movements in prices of valencia oranges.

Chapter 3 Growing sector

FINDING 3.1

Most citrus growers are not solely, or even largely, dependent on income derived from their citrus production — many earn a substantial and increasing part of their income from other farming activities, and from off-farm employment.

Chapter 5 Factors affecting the performance and outlook of the citrus industry

FINDING 5.1

The available evidence indicates that Australia cannot compete with frozen concentrate orange juice imports from Brazil in terms of price and quality.

FINDING 5.2

Australian citrus growers are focusing increasingly on supplying fruit suitable for the domestic and export markets for fresh fruit and fresh juice, where they currently enjoy seasonal and transport cost advantages. Even in these markets, however, new sources of foreign competition may emerge due to increases in production by other countries, and technological developments which lower transport costs and extend the life of 'fresh' juice.

FINDING 5.3

The switch away from producing juicing (valencia) oranges to varieties preferred in fresh fruit markets (navel oranges and mandarins), combined with rapid continued growth in the fresh juice market, may lead to a rise in the price of oranges supplied for the juice market. It may also provide an incentive for processors to extend their use of supply contracts or to invest in production of oranges for processing.

FINDING 5.4

Citrus growers, like other agricultural enterprises, face a number of risks, which are being managed in a variety of ways, including crop diversification, long-term supply contracts, vertical integration, off-farm sources of income and flexible management practices (such as the use of contract labour).

Chapter 6 Government policies and programs

FINDING 6.1

The citrus industry has used the generally available assistance programs to increase investment in research and development and market development, addressing possible market failure.

FINDING 6.2

Generally available assistance programs appear to be broadly effective in targeting the structural adjustment problems confronting some citrus growers.

Chapter 7 Potential impediments to international trade

FINDING 7.1

The use of export control powers may be appropriate in certain, narrowly-defined circumstances. However, these circumstances do not appear relevant to Australian citrus export markets.

FINDING 7.2

Many of the benefits attributed to export control could be achieved through other means, including voluntary cooperative action by exporters.

FINDING 7.3

Restrictive export controls may be impeding the development of markets for Australian citrus products — imposing costs on the industry, primarily through the loss of market opportunities and flexibility to meet changing market demands.

Export control arrangements for citrus products sold into the United States are likely to limit the opportunities available for some Australian exporters.

FINDING 7.4

A key question is whether export control arrangements generate additional benefits for Australian growers in general, beyond those achievable by other means — such as multiple import agents, voluntary cooperation, or well informed growers and exporters making commercial business decisions.

Chapter 8 Potential impediments in domestic markets

FINDING 8.1

Existing institutions and regulatory arrangements, when taken together, appear sufficient to limit misleading labelling practices.

FINDING 8.2

Concerns about existing institutions and arrangements governing the labelling of citrus products are likely to reflect problems associated with ensuring compliance with those arrangements by citrus processors.

Adopting strategies to improve compliance would be appropriate if the expected benefits outweigh the costs.

FINDING 8.3

Appropriate and rigorous scientific evaluation of agricultural and veterinary chemicals in Australia, can be inherently time-consuming and/or costly.

However, it remains important to avoid any unnecessary delays and unwarranted duplication which might impose costs on chemical manufacturers. They could have consequent significant adverse impacts on the availability of chemicals for the citrus industry.

FINDING 8.4

Competition for access to water resources and reforms designed to ensure that water resources are used more efficiently may result in some price rises for citrus growers and other irrigators. Some reforms (such as extending trade in water allocations) may provide offsetting benefits to some growers in terms of greater security of supply in some areas.

Chapter 9 Are further measures needed?

FINDING 9.1

A temporary increase in barriers against imports of frozen concentrate orange juice would be unlikely to alleviate the financial difficulty being experienced by some growers. Further, it would be a poorly targeted instrument, assisting all growers, rather than only those experiencing financial problems.

FINDING 9.2

Assistance that focuses narrowly on particular commodities, such as citrus, can distort farm business decisions, with possible adverse effects on the efficiency of the sector. It can also result in inequities, delay inevitable adjustment, and be costly to administer.

FINDING 9.3

Given the diverse nature and financial performance of citrus growing enterprises, generally available industry assistance measures are superior to further industry-specific assistance, including a formal safeguards investigation, in addressing adjustment problems faced by some citrus growers.

1 Introduction

On 26 September 2001, the Treasurer asked the Productivity Commission to undertake an inquiry into the citrus growing and processing industry. The terms of reference for the inquiry direct the Commission to report on the competitive situation and outlook for citrus growing and processing. The Commission also has been asked to report on whether additional measures may be necessary to enhance the industry's competitive situation, taking into account the effectiveness of Federal and State assistance programs.

1.1 Background to this inquiry

The citrus industry is one of Australia's largest horticultural industries. Because of climatic variations, tree characteristics and other factors, the production of citrus is variable. Oranges are the most widely grown citrus crop — the main varieties are valencias and navels. Mandarins also account for a reasonable proportion of total citrus fruit production, with the remainder comprising lemons, limes, grapefruit and tangelos.

Citrus fruit is consumed domestically in a number of forms, particularly as fresh fruit. On average, around half of Australia's annual orange crop is processed into fresh juice, frozen concentrate orange juice and other products such as dried fruit and oils used in the food processing industry and manufacturing.

The citrus supply chain is made up of a large number of diverse enterprises. As well as growers, it comprises packers, fruit processors, convertors and various agents such as transport companies, wholesalers, import and export agents and retailers.

Citrus fruit is traded internationally, in both fresh and processed forms, although Australia is a small player on the world scene. However, as a southern hemisphere producer, Australia, along with Brazil and South Africa, has the opportunity to exploit seasonal gaps in citrus production of northern hemisphere nations. Australia also has a significant market — with growth potential — in Asian nations, for which it has an advantage in terms of proximity.

The main forms of Australia's citrus imports are frozen concentrate orange juice from Brazil and, out of the Australian season, navel oranges from California.

The citrus industry in Australia has been adjusting to changes in market conditions and government assistance over several decades. During the 1970s and 1980s the industry received a high level of assistance. However, over the last decade, the levels and types of assistance provided have been reduced significantly.

Coinciding with these changes, there has been a steady shift in the citrus industry towards the production of varieties and products that are profitable in the more competitive trading environment. This has included a shift from valencia oranges, which are used mainly for processing into fresh juice or frozen concentrate orange juice, towards the production of varieties that are preferred in fresh fruit markets, especially navel oranges and mandarins.

The citrus industry's adjustment to change has been reflected in the increased value of domestic production in recent years and the more export-oriented focus of large parts of the industry. However, there are concerns that some sectors of the industry have not adapted as rapidly to the changes in trading conditions. This is especially the case with valencia growers who have a higher than average proportion of their fruit processed into concentrate. The inquiry has arisen in response to these concerns.

1.2 Conduct of the inquiry

In line with the usual operating procedures and guidelines for inquiries, the Commission has sought to conduct the inquiry in an open and transparent manner.

Upon receipt of the terms of reference, in late September 2001, the Commission placed advertisements announcing the inquiry in several major newspapers and issued a circular to parties with a potential interest in the inquiry. The inquiry was to be completed within six months of receipt of the terms of reference.

In October and November discussions were held with a variety of participants, including the peak citrus bodies (Australian Citrus Growers Inc., Australian Citrus Industry Council, Murray Valley Citrus Marketing Board and Riverina Citrus), government agencies (including the Departments of Foreign Affairs and Trade and Agriculture, Fisheries and Forestry — Australia) as well as a number of growers, packers and processors/convertors.

In mid-October the Commission also released an issues paper which, apart from calling for submissions, sought to provide guidance to participants on the range of issues within the scope of the inquiry and advice on how to go about preparing submissions.

Following a request by the Australian Citrus Growers Inc. and the Queensland Fruit and Vegetable Growers for an extension of the due date for initial submissions, and the unexpected illness of the Presiding Commissioner initially appointed to the inquiry, the Commission extended the deadline for submissions to 7 December 2001 and deferred the release date of the position paper to February 2002. To allow participants adequate time to prepare further submissions in response to the position paper and to attend the public hearings, the Commission requested a short extension to the reporting date for the inquiry. The Government granted the request and the completion date for the final report was extended to 30 April 2002.

A total of 87 submissions were received in response to the issues paper, from a variety of groups within, and related to, the citrus industry. These groups ranged from citrus growers' boards to fruit juice producers, as well as importers and exporters, local government and some government agencies. These submissions were placed on the Commission's website and copies were placed on public display at the Commission's offices in Melbourne and Canberra.

The release of the Commission's position paper in February 2002 enabled participants to provide comment on its preliminary analysis through a further round of submissions and at public hearings, which were held in Griffith, Mildura, Renmark and Melbourne in March 2002. Following the release of the position paper, the Commission received a further 46 public submissions. See appendix A for details of the individuals and organisations that have participated in the inquiry — through submissions, visits and/or appearing at public hearings.

1.3 Report structure

The next chapter examines the current situation in the major domestic and export markets for citrus products — namely fresh fruit, fresh juice and concentrate juice markets. Chapters 3 and 4 examine the current situation, profitability and competitiveness of citrus growers, and others involved in the industry (such as packers, processors and convertors). Chapter 5 discusses factors identified by participants that may affect the outlook for the industry. Chapter 6 then looks at government policies and programs used by the citrus growing and processing sectors. Chapter 7 assesses potential impediments to the future development of the citrus industry in relation to international trade, including those that were identified by participants. Similarly, chapter 8 discusses potential impediments in domestic markets. Chapter 9 draws together the analysis of previous parts of the report in order to consider the need for, and nature of, any measures which might enhance the competitiveness of the industry.

2 Citrus markets

This chapter presents information on the consumption and production of citrus products. The focus is mainly on oranges consumed in the markets for fresh fruit, fresh juice¹ and frozen concentrate orange juice (FCOJ)² — which have been the principal interest of the majority of participants in this inquiry. There is also a brief discussion of the fresh fruit market for mandarins. The chapter concludes by examining the relationships between the markets in which oranges are sold.

2.1 Introduction

The citrus industry is a significant horticultural industry in Australia and is the second largest fruit industry, producing 14.6 per cent of its total gross value. The real gross value of citrus production³ has risen by about one-third over the past eight years, reaching \$426 million in 1999-2000. This represents an average annual growth rate of 4 per cent, much the same as the growth in the national economy over that period. The real value of farmgate production has risen at a similar rate.

The growth in the real value of exports has been even more impressive, at an average annual rate of 14 per cent between 1988-89 and 2000-01 — faster than the growth in Australian total exports (figure 2.1). Exports now represent around one-quarter of total citrus production and nearly half of the total value of production. Although the citrus industry is a significant horticultural industry, it accounted for only 1.3 per cent of the total gross value of agricultural production in 1999-2000 (ABS 2001a).

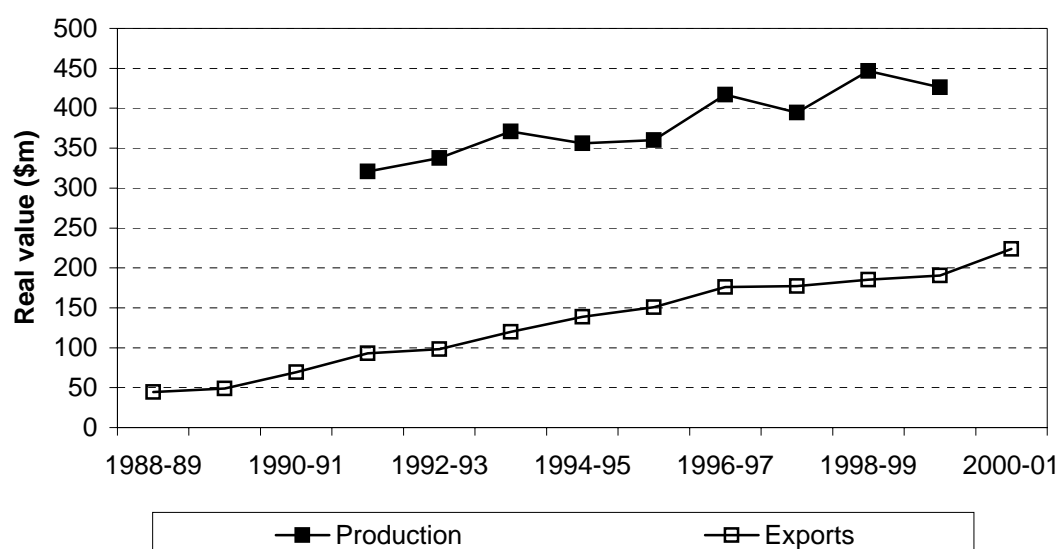
1 The term fresh juice or ‘not from concentrate’ (NFC) is used here to refer to juices that are not made from FCOJ. It includes non-frozen and frozen fresh juice, with or without preservatives, and pasteurised fresh juice (SARDI 2002).

2 FCOJ is the major form of processed citrus juice. It is traded extensively and has a longer shelf life than fresh orange juice. It is used to produce a variety of products including reconstituted orange juice, cordials and carbonated drinks.

3 The gross value of agricultural production is the value placed on recorded production at wholesale prices (ABS 2001a). Real values throughout the report were derived by applying the Gross Domestic Product deflator to the nominal gross value, with 2000-01 as the base year.

In 1999-2000, citrus production was around 641 kilotonnes (kt). Virtually all citrus production occurred in four States — New South Wales (40 per cent), South Australia (30 per cent), Victoria (16 per cent) and Queensland (13 per cent) (table 2.1). The major citrus growing centres are located in the irrigated horticultural regions of South Australia around Berri and Renmark (Riverland), the Murrumbidgee Irrigation Area (MIA) of New South Wales around Griffith (Riverina), along the Murray River in southern New South Wales and northern Victoria (Sunraysia and Mid-Murray), and the Central-Burnett and Emerald regions of Queensland (ACG 2001a).

Figure 2.1 **Real gross value of citrus production and exports, 1988-89 to 2000-01^a**



^a Real values were estimated using the Gross Domestic Product deflator, with 2000-01 as the base year.

Source: ABS unpublished production and value data; ABS unpublished trade data.

Oranges are the most popular variety of citrus fruit grown. Oranges represented 80 per cent of total citrus produced in 1999-2000, although they accounted for a smaller proportion — nearly 70 per cent — of the total gross value of citrus production (table 2.1). New South Wales produced 47 per cent of the total quantity of Australia's oranges, South Australia produced 33 per cent and Victoria 17 per cent. The proportion of the total orange crop accounted for by each State differed slightly in terms of value. New South Wales produced around 43 per cent of the total gross value of oranges, South Australia produced 29 per cent and Victoria 22 per cent. The differences between quantity shares and value shares accounted for by each State are a result of differences in the mix of orange varieties, the average unit values received for a particular variety and marketing costs.

Table 2.1 **Citrus production and value, 1999-2000^{a, b, c}**

| | <i>Australia</i> | <i>NSW</i> | <i>SA</i> | <i>Vic</i> | <i>Qld</i> | <i>WA</i> |
|---|------------------|--------------|--------------|--------------|----------------|--------------|
| <i>Production (kt)</i> | | | | | | |
| Oranges | 510.0 | 237.7 | 166.0 | 84.2 | 16.6 | 5.4 |
| valencia | 311.3 | 154.9 | 109.8 | 39.0 | 4.4 | 3.2 |
| navel | 195.7 | 81.8 | 55.8 | 45.0 | 10.9 | 2.1 |
| other | 3.0 | 1.0 | 0.4 | 0.2 | 1.3 | 0.0 |
| Mandarins | 85.4 | 8.0 | 10.2 | 6.3 | 59.4 | 1.6 |
| Lemons and limes | 32.4 | 5.3 | 10.4 | 7.0 | 8.2 | 1.5 |
| Grapefruit | 13.4 | 6.5 | 3.0 | 2.4 | 1.2 | 0.2 |
| Total^d | 641.2 | 257.4 | 189.6 | 99.9 | 85.4 | 8.6 |
| <i>Gross value (\$m)</i> | | | | | | |
| Oranges | 289.5 | 125.2 | 84.5 | 62.5 | 14.4 | 2.8 |
| valencia | 131.5 | 71.4 | 37.3 | 17.2 | 4.1 | 1.5 |
| navel | 155.4 | 53.2 | 46.7 | 45.0 | 9.3 | 1.3 |
| other | 2.5 | 0.7 | 0.6 | 0.3 | 1.0 | 0.0 |
| Mandarins | 93.3 | 8.6 | 12.3 | 7.6 | 62.8 | 2.0 |
| Lemons and limes | 24.2 | 4.5 | 5.0 | 5.9 | 7.4 | 1.4 |
| Grapefruit | 7.6 | 3.5 | 1.3 | 1.2 | 1.3 | 0.1 |
| Citrus (nec) | 11.6 | 1.0 | 6.2 | 4.1 | 0.2 | 0.1 |
| Total | 426.1 | 142.8 | 109.3 | 81.3 | 86.0 | 6.5 |
| <i>Average unit values (\$/t)^e</i> | | | | | | |
| Oranges | 567.6 | 526.9 | 508.9 | 742.3 | 865.9 | 521.8 |
| valencia | 422.4 | 461.1 | 339.4 | 441.0 | 936.8 | 466.3 |
| navel | 794.5 | 650.2 | 836.2 | 999.8 | 852.7 | 601.1 |
| other | 835.8 | 635.6 | 1 311.9 | 1 367.8 | 740.3 | 1 162.7 |
| Mandarins | 1 092.1 | 1 079.8 | 1 208.8 | 1 204.4 | 1 056.3 | 1 302.3 |
| Lemons and limes | 747.3 | 860.3 | 476.7 | 840.5 | 900.1 | 938.2 |
| Grapefruit | 565.3 | 531.4 | 422.2 | 516.5 | 1 100.7 | 570.0 |
| All citrus^d | 664.6 | 554.7 | 576.2 | 813.3 | 1 007.1 | 752.1 |

^a Estimates of production are based on information obtained from the Agricultural Commodity Survey conducted on 30 June 2000. ^b Production of citrus in the Northern Territory was very small (around 0.17 kt), and data were not collected for Tasmania and the ACT. ^c Real values were estimated using the Gross Domestic Product deflator, with 2000-01 as the base year. ^d Estimates of production for citrus not elsewhere classified (nec) where not available for 1999-2000. Therefore, unit values for total citrus will be slightly overestimated. ^e Average unit values are estimated by dividing gross value by production.

Source: ABS unpublished production and value data.

Navels and valencias are the two main varieties of oranges. Navels are largely sold as fresh fruit in domestic and export markets, whereas valencias are sold predominantly for processing. Fruit sold for processing generally receives a lower price than fruit sold for fresh fruit. Two-thirds of the total orange crop of New South Wales and South Australia are valencia oranges, compared with around half in Victoria.

In 1999-2000, the average gross unit values for New South Wales navels and South Australian valencias were lower than the Australian average (table 2.1). In contrast, the average gross unit values of Victorian navels and valencias were higher than the Australian average. This could be a result of differences in the proportions of navel and valencia oranges going to different purposes or markets. While State information is not available on such differences, it is likely that States with higher proportions of navel and valencia oranges going to domestic and export markets for fresh fruit would achieve higher average unit values.

State statistics do not fully reveal regional differences in the mix of orange varieties produced. For instance, of the total orange crop produced in the Riverina region in 1999-2000, 75 per cent were valencias. The comparable proportions were 68 per cent in the Riverland and 50 per cent in the Mid-Murray and Sunraysia regions (Australian Citrus Growers Inc. (ACG), sub. 72, p. 3).

Mandarins are the second most popular variety of citrus grown. Mandarins were 13 per cent of total production of citrus in 1999-2000. Reflecting their higher average prices, mandarins accounted for 22 per cent of the total gross value of citrus. Approximately 70 per cent of Australia's total mandarin production occurs in Queensland.

The main varieties of mandarins include Imperial, Murcott and Ellendale. Most mandarins are sold as fresh fruit in the domestic and export markets, although a small proportion is processed into juice.⁴

2.2 Recent trends in production and prices

Seasonal variation in production is one of the key features of the citrus industry. According to Berri:

... seasonal variation in production is perhaps one of the major or the major single factor influencing the industry, whether that be from the growing, processing, packing or fresh fruit marketing for export or domestic markets. (trans., p. 464)

This can create differences in both the quantity and quality of fruit produced from year to year, with consequent impacts on the proportion of fruit going to different markets — fresh fruit or processing — and the average prices received for citrus fruit.

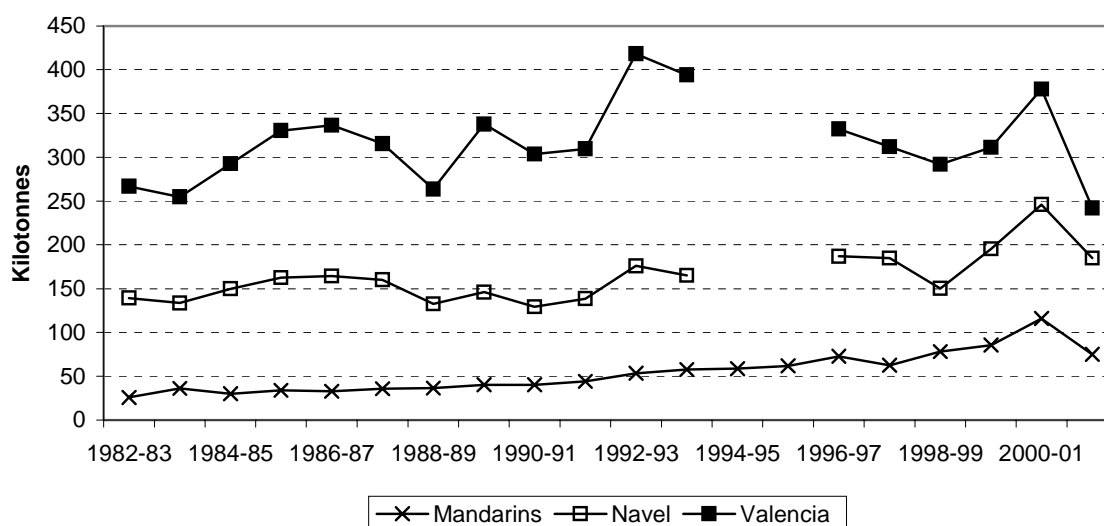
⁴ Mandarins include tangerines and satsumas, clementines, wilkings and similar citrus hybrids.

Production

Citrus growers have increased the proportion of their production that is sold in fresh fruit markets. This has been driven by changes in consumer preferences and tastes as well as an increase in FCOJ imports.

As a result of these changes, production of valencia oranges in Australia has generally been decreasing since 1993-94 (figure 2.2). This trend is expected to continue because growers are removing and not replacing valencia trees from orchards. From 1982-83 to 1993-94 the number of valencia bearing trees increased by around 70 per cent to 4.2 million. However, since 1993-94, these numbers have decreased by 12 per cent to around 3.7 million in 1999-2000. There has also been a significant decrease in the number of valencia non-bearing trees (see chapter 3).

Figure 2.2 Australian production of valencias, navels and mandarins^{a, b, c}



^a Data disaggregated into orange varieties were not available for 1994-95 and 1995-96. ^b Data for 1983-84 to 1999-2000 were from the ABS, while 2000-01 and 2001-02 data were from the ACG. ^c 2001-02 data are forecasts by the ACG.

Source: ABS unpublished production and value data; and ACG (2001b).

The production of navel oranges has been increasing gradually for nearly two decades, as growers have sought the higher prices available for fresh fruit. In the early 1980s, navel production was around 140 kt. By early 2000, production was around 200 kt (figure 2.2). Currently, there are around 3.2 million navel bearing trees. The production of navel oranges is expected to increase further as a result of increased plantings of non-bearing trees reaching bearing age (see chapter 3).

Higher returns also exist in the fresh fruit market for mandarins. Consequently, mandarin production has increased from around 30–35 kt in the early 1980s to around 100 kt by early 2000. There are currently 1.2 million mandarin bearing trees, an increase of 168 per cent since 1982-83. There has also been rapid growth in mandarin non-bearing trees. Between 1982-83 and 1999-2000, the number of such trees increased significantly (see chapter 3).

Market distribution of orange crop

Around half of Australia's orange crop is sold in the fresh fruit market, either for domestic consumption or export. On average over the period 1997-98 to 2000-01, around 29 per cent of orange production was sold as fresh fruit in the domestic market and 23 per cent in export markets (table 2.2).

Table 2.2 **Orange market distribution, 1997-98 to 2000-01^{a, b}**

| | <i>Distribution of production</i> | | | | <i>Percentage share of production</i> | | | |
|--|-----------------------------------|---------|-----------|------------------|---------------------------------------|------------------|-----------|------------------|
| | 1997-98 | 1998-99 | 1999-2000 | 2000-01 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 |
| | kt | kt | kt | kt | % | % | % | % |
| <i>Navels production</i> | 185 | 150 | 196 | 246 | 100 | 100 ^c | 100 | 100 |
| fresh exports | 64 | 61 | 74 | 96 | 35 | 41 | 38 | 39 |
| domestic fresh | 75 | 61 | 82 | 74 | 40 | 41 | 42 | 30 |
| processing | 46 | 28 | 40 | 76 | 25 | 19 | 20 | 31 |
| <i>Valencia production^d</i> | 315 | 295 | 314 | 378 ^e | 100 | 100 | 100 | 100 ^e |
| fresh exports | 39 | 52 | 40 | 48 | 12 | 18 | 13 | 13 |
| domestic fresh | 75 | 76 | 75 | 82 | 24 | 26 | 24 | 22 |
| processing | 201 | 167 | 199 | 202 | 64 | 56 | 63 | 53 |
| <i>Total production</i> | 500 | 446 | 510 | 624 ^e | 100 | 100 | 100 | 100 ^e |
| fresh exports | 103 | 113 | 110 | 143 | 21 | 25 | 22 | 23 |
| domestic fresh | 150 | 137 | 155 | 156 | 30 | 31 | 30 | 25 |
| processing | 246 | 196 | 245 | 279 | 49 | 44 | 48 | 45 |

^a For 1997-98 to 1999-2000, the production data are from the ABS; the 2000-01 data are estimates from the ACG. ^b The kilotonnes consumed in the fresh export, domestic fresh and processing markets are based on the percentage share of production in each market, which were obtained from the Australian Citrus Industry Council. To be consistent with production figures used in previous sections, these percentage shares were applied to the production data from the ABS for 1997-98 to 1999-2000, and to the production data from the ACG for 2000-01. ^c Totals may not add up to 100 per cent as a result of rounding. ^d Valencia production includes other oranges. ^e In 2000-01, there was a discrepancy between production and market distribution data for valencias of around 12 per cent. This discrepancy may be due to estimation errors, fruit that was dumped, or fruit left on trees.

Source: ABS unpublished production and value data; ACG (2001b, 2001d).

The other half was processed into juice — 35 per cent into fresh juice and 15 per cent into FCOJ. In Australia, processing of oranges into FCOJ is generally

regarded as an outlet of last resort that absorbs fruit either unsuitable for, or excess to, the demand for fresh fruit or fresh juice.

According to Interaust Foods (sub. 65, p. 2), the fresh juice market accounts for around 30–35 per cent of orange juice consumed in Australia. The view of some participants is that, in an average year, the demand by processors for oranges to manufacture fresh juice is just catered for by the domestic supply of valencias (Murray Valley Citrus Marketing Board, trans., p. 197). Estimates provided by participants are that in a ‘normal/average’ year, between 160–200 kt of valencia oranges are sold to processors for juicing. According to Interaust Foods:

Given that the ‘NFC’ market allegedly accounts for something approaching 30-35 per cent of orange juice consumption in Australia, there is therefore a requirement of around 160 000–170 000 tonnes of valencia oranges to cover this. (sub. 65, p. 2)

The Original Juice Company considered that around 180 kt of valencias are processed into fresh juice (pers. comm., 14 January 2002), while Berri Limited’s estimate was around 200 kt (pers. comm., 4 February 2002).

Taking a conservative view, it would appear that around 170 kt of valencias, or 55 per cent of the total valencia crop, is processed into fresh juice. A further 35 per cent of the total valencia crop is sold as fresh fruit (with around 20 per cent sold domestically and 15 per cent sold for export). The remaining 10 per cent was processed into FCOJ. These proportions can vary depending on the crop size, quality of the fruit and demand conditions.

Generally, 80 per cent of navels are sold in fresh fruit markets — 40 per cent domestically and 40 per cent in export markets. The other 20 per cent is processed, mainly into FCOJ (table 2.2). In 2000-01, a greater share of the navel crop was processed (around 30 per cent) and less was sold in the fresh fruit market. This was due mainly to a large proportion of the crop being of poor quality and unsuitable for the fresh market.

FINDING 2.1

Most Australian oranges are sold in the fresh fruit and fresh juice markets. The share of the total orange crop used to produce frozen concentrate orange juice (FCOJ) is relatively small, at around 15 per cent.

Prices of citrus products

Prices of fresh fruit in export markets are generally above those of the domestic market (SARDI 2001b). Within export markets, prices for mandarins and navels are

higher than for valencias. Between 1994-95 and 2000-01, the unit values⁵ per tonne of mandarin exports (free on board) were in the range of \$1370–1630, compared with \$965–1265 for navels and \$720–865 for valencias (table 2.3). In recent years, the differences between the export unit values for mandarins and navels has been decreasing, while the differences between the unit values for navel and valencia exports have been increasing. Unit values received for exports vary between countries (table 2.5 in section 2.3).

Over the period 1994-95 to 2000-01, retail prices tended to move in the same direction as wholesale prices. However, according to the Murray Valley Citrus Marketing Board, the difference between wholesale and retail prices for oranges sold as fresh fruit has been increasing (trans., p. 204). This matter is discussed further in chapter 8.

Within the domestic fresh fruit market, prices for navels are higher than for valencias. Between 1995-96 and 2000-01, the wholesale price for navel oranges ranged from around \$930–1570 per tonne, compared with around \$500–740 per tonne for valencias (table 2.3).

In order to secure an amount of valencias each year to meet the demand for fresh juice, domestic fresh juice processors are increasingly offering contracts to growers. The price offered by Berri Limited per tonne of valencias for processing into fresh juice is around \$170–240 per tonne (sub. 80, p. 5). The contract prices offered by Berri Limited were disputed by Riverina Citrus. It stated that Berri Limited's contract prices range from \$150–220 per tonne in their region, and it can be as low as \$120 per tonne when quality is deficient (trans., p. 24).

Kent Andrews, a grower from South Australia, also commented on the prices received by growers for oranges sold to processors:

Approximately 25 per cent of navel and 65 per cent of valencia oranges produced in South Australia are directed to fruit juice and fruit juice products.

A considerable percentage of this is contracted fruit which supplies the fresh juice market and growers receive between \$150–220 per tonne. In general the balance is paid at the world price; this could be as low as \$50 per tonne, however normally ranging between \$80–110. It is uncertain how much of this fruit may actually be used in 100 per cent fruit juice or go to concentrate. (sub. DR106, p. 1)

⁵ Although the unit value is not the same as the actual price, in this chapter it is used as an indicator of the average price per tonne of Australian citrus fruit sold in a particular market outlet.

Table 2.3 Nominal unit value and price of selected citrus products in export, import and wholesale markets, 1994-95 to 2000-01

Dollars per tonne

| | 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 |
|--|---------|---------|---------|---------|---------|-----------|---------|
| <i>Export (free on board)^{a, b}</i> | | | | | | | |
| Navel orange | 964.5 | 999.5 | 1 019.4 | 1 044.5 | 1 226.2 | 1 262.8 | 1 128.1 |
| Valencia orange | 736.7 | 810.1 | 794.4 | 734.9 | 866.4 | 836.1 | 721.5 |
| Mandarin | 1 610.2 | 1 534.2 | 1 589.7 | 1 632.3 | 1 384.4 | 1 568.1 | 1 368.7 |
| <i>Import (cif)^{a, c}</i> | | | | | | | |
| FCOJ (fresh fruit equivalent) | 86.3 | 108.6 | 81.1 | 71.6 | 97.8 | 94.8 | 73.6 |
| <i>Retail</i> | | | | | | | |
| All oranges ^d | 1 485.0 | 1 821.3 | 1 776.3 | 1 925.0 | 2 302.5 | 2 247.5 | 2 060.0 |
| <i>Wholesale (average unit gross value of production)^{e, f}</i> | | | | | | | |
| All oranges | 415.3 | 496.4 | 490.5 | 507.2 | 664.4 | 541.9 | |
| Navel orange | | | 723.4 | 818.1 | 947.8 | 758.5 | |
| Valencia orange | | | 353.0 | 315.5 | 512.3 | 403.3 | |
| Mandarin | | | 1 185.1 | 1 220.8 | 1 046.1 | 1 042.6 | |
| <i>Wholesale market^{f, g}</i> | | | | | | | |
| Lane and late lane navel oranges | | 930.1 | 1 055.9 | 1 029.3 | 1 291.6 | 1 100.4 | 934.4 |
| Washington navel orange | | 1 073.2 | 953.2 | 1 066.9 | 1 568.7 | 1 123.6 | 768.0 |
| Valencia orange | | 589.6 | 504.2 | 507.9 | 742.7 | 619.4 | 561.8 |

^a Export and import unit values are based on Australian customs trade data and are calculated by dividing the values by quantities. The export values are free on board values, while the import values are at customs value. ^b Exports of fresh fruits include dried fruits. Some exports are sold on consignment (notably navels to the United States). For these fruit, value data are an estimate of the value actually realized in export markets. ^c Imports of FCOJ were converted from kg of total soluble solids (TSS) to tonne of real fruit equivalent. The conversion factor used was: 47 kg of TSS of concentrate equals 1 tonne of oranges. ^d Retail prices for oranges are based on ABS monthly average retail prices collected for each capital city. In this table, the annual prices were calculated by taking the average monthly prices for two cities — Melbourne and Sydney. ^e Wholesale unit values were estimated from ABS data. Gross value was divided by production to obtain the unit value (an indicator of the price received at the wholesale level). ^f Wholesale average unit gross values relate to fruit sold for processing and domestic and export fresh fruit markets. Wholesale market data relate only to prices for fresh fruit in domestic wholesale markets. ^g Wholesale prices are based on Ausmarkets monthly data, collected for each variety of citrus. In this table, the annual prices were calculated by taking the average prices, for fruit sold in 18 kg cartons, across each month for two cities (Melbourne and Sydney) for four orange types — lane (navel), late lane (navel), washington (navel) and valencia. The price data for lane and late lane were combined.

Source: ABS (*Average Retail Prices for Selected Items*, Cat. no. 6403.0); ABS unpublished production and value data; ABS unpublished trade data; Ausmarkets unpublished data.

The Grove Fruit Juice Company is another processor offering contracts to secure supplies of valencias:

Using a benchmark price of \$180 we pay 50 per cent of each load at the benchmark price and 50 per cent at spot, the principle being to remove extremes whilst still maintaining a relationship with annual harvest variances. (Current spot price is \$300–\$320 and our average return on contracted fruit for March 2002 purchases will be \$240). (sub. DR117, p. 2)

According to Berri Limited, given the current trends in consumer demand and tree plantings, domestic supply of valencia oranges is sufficient to meet Australia's demand for fresh juice. However, it noted that in years when crop production is high, some processors purchase fruit at a non-contract price, which is equivalent to that of FCOJ imports:

Berri has recognised that its own viability in the fresh juice market is strongly linked with grower profitability and has initiated a number of programs aimed at stabilising grower profit related factors. In high crop years this approach has been undermined, at great expense to Berri, as opportunistic processors purchase non contracted fruit for \$60-\$80 per tonne and undercut selling prices for fresh juice by over 50 per cent (that is, compared with contracted prices of \$170-\$240 per tonne). (sub. 80, p. 5)

The Grove Fruit Juice Company responded to these claims stating:

... Berri have also purchased fruit off contract at prices below the minimum paid by Grove and other processors. It should be taken into consideration that Berri's stated contract-pricing policy has been effective only from the current season. It would be a distortion of the facts to assume that those prices have been paid historically. (sub. DR117, p. 3)

The prices received by growers vary across variety and according to whether the product is sold for fresh fruit in domestic or export markets, or sold for processing as fresh juice or FCOJ. Prices received by growers for citrus sold into the fresh fruit market, particularly for navels and mandarins, are considerably higher than those for fruit sold for processing. The prices to growers for oranges sold for processing into fresh juice are generally higher than those received for FCOJ.⁶ Since 1995-96, the average unit value (fresh fruit equivalent) of FCOJ imports has generally been below \$100 per tonne (table 2.3). The higher prices received for fresh juice reflect, in part, the higher contract prices between some growers and processors.⁷

There has been considerable debate during the inquiry about the level of prices received for citrus by growers. In particular, the Commission's use in the position paper of ABS average farmgate unit values (presented in table 2.4) was questioned. ABS farmgate unit values are an estimate of the average prices that growers received across Australia from selling their fruit in all possible market outlets,

⁶ The FCOJ price is an import parity price and therefore, while close to the price paid by processors, it does not include the cost of delivery to the processor and any local storage costs. As a result, a small difference is to be expected between the FCOJ price and the price received by growers for their fruit on delivery.

⁷ For some growers, the high contract prices for valencias for fresh juice may apply to only a small share of their total crop, particularly in a high crop year. Riverina Citrus stated that 50 per cent of the crop is contracted in a surplus supply year and 90 per cent in a low supply year (trans., pp. 36-38).

including the domestic and export fresh fruit markets, and the market for fresh juice and concentrate juice.

Many participants considered that these unit values were significantly above prices actually received by growers. John Whyte, for example, considered that the ABS farmgate unit value estimates were unrealistic:

Where did you obtain Farmgate (average unit local value of production)? This table indicates a farm gate price of \$300.20 for valencias in the year 1999-00. My average works out at \$170 at farm, less \$20 freight to packing shed and less \$10 levies so that in fact the return to grower was \$141 per tonne. We had problems with small fruit but I thought this was about average. Growers with large size fruit would have fared better. (sub. DR96, p. 2)

Riverina Citrus stated that if the Commission had used data from packers and growers, a more accurate picture of the industry would have emerged.

We just think that [the Commission is wrong in] relying on that ABS data rather than actual information from growers and pack houses — that is the only way to get an accurate picture of how the industry is going. (trans., p. 18)

To take into account the concerns expressed by participants regarding the ABS data and to present information on prices received by growers in certain regions, a number of other estimates have been included in this report.

The Commission has obtained estimates of prices for the Murray Valley and Riverina regions (table 2.4). The estimates for the Murray Valley are based on a survey of around 30 growers who together produce around 20 kt of fruit per year. The Riverina region estimates are based on two samples with around 100 growers in each. The first sample was of growers who together sell to packer A a total of around 20 kt of fruit each year. The price estimates from this sample do not represent a weighted average of all fruit. Rather, they are a simple average of prices received at the beginning, middle and end of a particular season. Therefore, they might not be as reliable an indicator of the average farmgate price as the other estimates. The second sample from the Riverina was of growers who together sell to packer B a total of around 12 kt per year.

It is the Commission's view that data taken from individual growers, or subsets of them, in one or two regions may not provide an accurate picture of the whole Australian citrus industry. Invoices of individual growers provided to the Commission show prices received by those growers for certain quantities of their fruit. While these invoices are useful, they may not necessarily be representative of the grower's whole orange crop or of all growers in their region. Similarly, a sample of growers who send their fruit to a particular packer may not be representative of all the fruit packed or processed in a region. For example, a certain packer may pack

fruit of a lower quality and have a larger proportion of oranges going to processing than the average for that region or for Australia as a whole.

The information provided to the Commission from the Murray Valley and Riverina regions shows that there is considerable variation in prices both between and within regions. For instance, in 1999-2000, growers dealing with packer A in the Riverina received \$120 per tonne for valencias, compared with \$141 for those dealing with packer B. In the same year, the Murray Valley sample received a much higher price of \$205 per tonne. In 1999, while prices received by Riverina growers for navels in were low (under \$160 per tonne) in the Murray Valley region the price was well over \$500 per tonne (although this comparison is affected by the fact that the Murray Valley navel data are for the financial year while the Riverina navel data are for the calendar year).

Variations in prices across regions are most likely a result of differences between regions in the use of oranges they supply. For instance, the Riverina region has a higher proportion of valencias going to processing than the Australian average. Between 1997-98 and 2000-01, 69 per cent of the Riverina region's valencias went to processing compared with 59 per cent for Australia as a whole.⁸ Therefore, valencia prices from this region would be expected to be lower than the Australian average.

The Commission does acknowledge, however, that the ABS estimates of average farmgate unit values have some limitations if interpreted as the price that growers receive at the farmgate for their produce (box 2.1). Participants have identified some of these limitations. The ACG expressed the industry's reservation about using ABS local value data as follows:

Unless they [ABS] have a very good understanding of what all the marketing costs are, I think their whole price series would be significantly flawed.

They didn't even take into account levies paid by the growers: which are State levies, national levies. They [also] don't take into account the real cost of packing. (trans., p. 143)

The Commission accordingly has prepared estimates of the average unit values received by growers at the farmgate by deducting costs associated with packing and the transportation of fruit to processing from the ABS local value data (box 2.1 and appendix B).

⁸ These proportions were derived by dividing the total volume of valencias going to processing over the four years by the total volume of valencia production. Data for the Riverina were provided by Riverina Citrus (pers. comm., 10 October 2001).

Box 2.1 Farmgate average unit values using ABS data

Local (farmgate) value is defined by the ABS as gross (wholesale) value less marketing costs.

Wholesale value is derived from estimated quantity and value data from three source.

1. Exports of fresh fruit — the ABS uses customs data.
2. Factory processing — the ABS uses data from an annual survey of processing factories.
3. Domestic fresh market sales. The quantity sold in this market is derived as a residual — the total reported by growers less the sum of 1 and 2). Gross value is then determined by multiplying the residual quantity by the average wholesale price at capital city markets.

ABS assumes that farmers pack and sell directly to wholesalers and in estimating local value only deduct marketing costs incurred in moving citrus from the farm to each of the wholesale markets and includes freight and cartage, storage, handling, container costs, packaging materials, insurance and commission. The cost of labour and capital investment in packing is not deducted.

ABS also assumes that there are no marketing costs for fruit that goes to processing. This means that the estimate of local value does not have transport costs from farm to processing facility deducted.

To overcome these limitations the Commission has derived its own estimates of local value by netting out unaccounted for costs of packing and transport (table 2.4). Appendix B shows the method by which these estimates were derived. Appendix B documents these adjustments.

Average farmgate unit value estimates are derived by dividing local value (farmgate value) by the quantity of production (table 2.4).

Source: ABS (pers. comm., 14 February 2002).

During the period 1996-97 to 1999-2000, the average unadjusted unit local value derived from ABS local value data at the farmgate was in the range \$565–785 per tonne for navels, \$240–400 per tonne for valencias and \$820–940 per tonne for mandarins. The 95 per cent confidence intervals associated with these estimates show that, while they are relatively reliable, actual prices could deviate from them by as much as 12 per cent (table 2.4).

The Commission's new estimates (based on ABS local data) show that, even after adjusting for packing and transport costs, the weighted average unit value for valencias from 1997-98 to 1999-2000 was \$225 per tonne. The unit value was at least twice the FCOJ unit value in each year (table 2.4 and table 2.3). This is because, as discussed earlier, only around 10 per cent of the total valencia crop is processed into FCOJ. The weighted average unit value received by growers for

navels from 1997-98 to 1999-2000 was \$472 per tonne, reflecting the fact that the majority of the navel crop is sold in fresh fruit markets.

The estimates provided for the Murray Valley and Riverina regions are generally lower than other estimates, although they show similar fluctuations in prices from year to year.

Table 2.4 Nominal farmgate average unit values, 1996-97 to 2000-01
Dollars per tonne

| | 1996-97 | 1997-98 | 1998-99 | 1999-2000 | 2000-01 |
|--|---------|---------|---------|-----------|-------------------|
| <i>ABS average unit local value of production^a</i> | | | | | |
| Navel orange | 565.8 | 646.7 | 783.2 | 610.7 | |
| Valencia orange | 242.2 | 237.9 | 399.5 | 300.2 | |
| Mandarin | 911.5 | 940.9 | 820.2 | 827.4 | |
| <i>ABS average unit local value of production (95 per cent confidence interval)^b</i> | | | | | |
| Navel orange (high) | | 670.0 | 827.1 | 685.2 | |
| Navel orange (low) | | 623.4 | 739.3 | 536.2 | |
| Valencia orange (high) | | 245.9 | 432.2 | 324.8 | |
| Valencia orange (low) | | 229.8 | 366.7 | 275.6 | |
| <i>PC estimates (ABS average unit values with adjustments made for packing and transport cost)^c</i> | | | | | |
| Navel orange | | 455.5 | 577.6 | 407.7 | |
| Valencia orange | | 159.0 | 303.1 | 218.8 | |
| <i>Murray Valley region estimates^d</i> | | | | | |
| Navel orange | 425.0 | 309.0 | 650.0 | 596.0 | |
| Valencia orange | 143.0 | 130.0 | 278.0 | 205.0 | |
| <i>Riverina region estimates^e</i> | | | | | |
| <i>Packer A^f</i> | | | | | |
| Navel orange | 190.0 | 380.0 | 280.0 | 100.0 | 360.0 |
| Valencia orange | 110.0 | 115.0 | 260.0 | 120.0 | 95.0 ^g |
| <i>Packer B</i> | | | | | |
| Navel orange | | 462.0 | 512.0 | 160.0 | 435.0 |
| Valencia orange | | 95.0 | 238.0 | 141.0 | 135.0 |

^a The local unit value was estimated from ABS data by dividing local value (farmgate value) by production.

^b The 95 per cent confidence interval is equivalent to the ABS total local value \pm 2 standard errors divided by total production. Standard errors are available only for 1997-98 onwards. ^c Productivity Commission estimates were derived by deducting transport and packing costs from ABS local value data. For an explanation of the methodology and assumptions used in deriving these estimates see appendix B. ^d Murray Valley estimates are based on a survey conducted by Rendell McGuckian (2001). Potential problems with this survey's methodology are discussed in chapter 3. ^e Riverina Citrus estimates for navel oranges are for calendar year. Figures shown for 1996-97, for example, are actually for 1997. ^f Price estimates from this sample do not represent a weighted average of all fruit; rather they are a simple average of prices received at the beginning, middle and end of a particular season. ^g In 2001-02, the price received for valencia oranges was \$192 per tonne.

Source: ABS unpublished production and value data; Retailworks (2001); Murray Valley Citrus Marketing Board (sub. 75, p. 29); Riverina Citrus (attachment to sub. DR132).

Actual prices received by growers for fruit sold in fresh export markets are not provided in tables 2.3 and 2.4. According to Elton, Hutton and Mullen (1999), the average price to growers (net of packing and marketing costs) in the 1995-96 and 1996-97 seasons for Australian navel exports to the United States was around \$1430 per tonne. Sunraysia Citrus Growers said that growers received around 50 per cent of the export (fob) price of fresh fruit sold in export markets (trans., p. 318). Applying these proportions to price ranges received for fresh fruit exports would imply that the price received by growers for exported fruit ranges from \$680–820 for mandarins, \$480–630 for navels and \$360–430 for valencias.

Although growers' prices from the domestic fresh fruit market were not available for the corresponding years, Elton, Hutton and Mullen (1999) estimated that the on-farm real price of navels ranged from approximately \$270–400 per tonne (net of packing, transport and marketing charges) between 1967-68 and 1996-97.⁹ In some cases, grower prices of \$700 per tonne have been achieved for premium quality fruit sold in the domestic fresh markets.¹⁰

FINDING 2.2

Although growers receive a low price for oranges processed into FCOJ, the average price received by growers for their total orange crop is substantially above the FCOJ fruit equivalent price. Regional differences in types of citrus production mean that the margin between average prices and the FCOJ price varies across regions.

2.3 Fresh fruit markets

Domestic

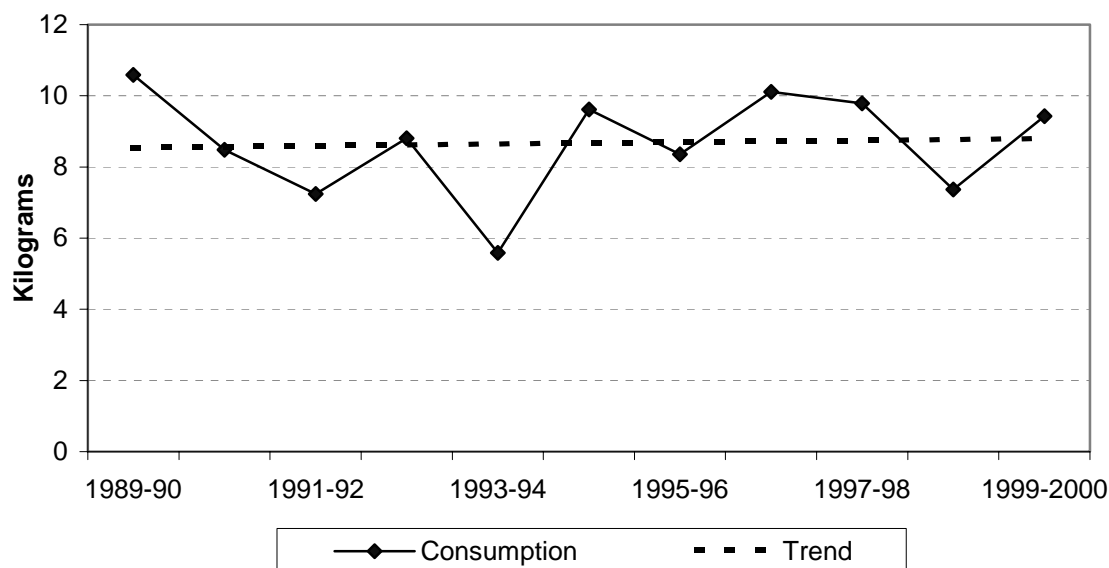
Between 1997-98 and 2000-01, domestic demand for navels for fresh consumption has been in the range of 60–80 kt, which is around 40 per cent of the average annual navel crop. Over the same period, the demand for valencias has been in the range of 75–80 kt. This is between 22–26 per cent of total valencias produced each year (table 2.2). The Queensland Fruit and Vegetables Growers estimated that, in 2000, around 67 per cent of mandarin production was sold in the domestic market, with Imperial being the dominant variety (sub. 81, pp. 2–3).

⁹ Elton, Hutton and Mullen (1999) converted nominal prices to 1997 dollars using the Australian consumer price index.

¹⁰ However, this might apply to only a small proportion of the total citrus crop of a grower.

According to the ACG, there has been virtually no growth in per capita consumption of fresh citrus in Australia since the late 1980s (figure 2.3).

Figure 2.3 Annual per capita fresh citrus consumption trend in Australia, 1989-90 to 1999-2000^a



^a Fresh consumption is the total of domestically produced fresh citrus, less exports, plus small amounts of imported fresh citrus each year.

Source: ACG (sub. 72, p. 18).

The increase in average weekly earnings and in the health consciousness of consumers might have been expected to lead to an increase in per capita consumption. However, the domestic demand for fresh citrus is also influenced by competing substitutes (other fruit). This may explain the flat long-term trend in per capita consumption. According to the Australian Food and Grocery Council (sub. 83, p. 4), citrus fruit competes mainly with other fruit. The different assortment of fruit, and therefore the degree of competition, have increased over the years. In 1985, Woolworths had around 80 types of fruit and vegetables in its stores, but by 1995 this had increased to 400 (Clairs 1995).

Citrus fruit may face less competition in certain months of the year because other types of fruit are out of season. However, this may change in the future.

These increases of (alternative fruit products) will also bring season extensions and more potential overlap with the availability windows for oranges. These products are not an absolute alternative for all orange consumption but they have potential to affect the incremental purchase, particularly if their volume increases force their prices lower. (Retailworks 2001, p. 7)

Apart from competition from other fruit, there is also competition within citrus varieties. Consumers' preferences have been moving towards consumption of sweeter fruit (Clairs 1995). In the fresh citrus market, navels and mandarins are generally perceived as the sweeter, juicier and more convenient varieties — mandarins are easy to peel and navels have fewer seeds (Aurora Practical Solutions 2002).

Another factor that affects the demand of citrus fruit is the extent of promotional activities. According to Retailworks, promotional activities for valencia oranges have been decreasing, while those for other fruit have been increasing. The reason for this is:

There is a far higher likelihood that consumers can be stimulated to purchase incremental quantities of stone fruit or mangos, as opposed to [valencia] oranges, so these alternative products will also take the advertising exposure. (Retailworks 2001, pp. 6–7)

Exports

Australia competes with other southern hemisphere countries, such as Brazil and South Africa, in fresh fruit export markets because these countries have similar seasonal patterns to Australia. Although Australia is a small producer of citrus compared with Brazil, it is still able to compete in export markets for fresh fruit (especially navel oranges) because the Brazilian citrus industry focuses primarily on producing oranges for processing into FCOJ. Australia also has an advantage over South Africa in terms of quality, according to the Murray Valley Citrus Marketing Board:

... South African fruit quality probably varies. Some of it might be comparable to ours, but generally speaking I think we have a reputation for supplying a better-quality navel product. (trans., p. 186)

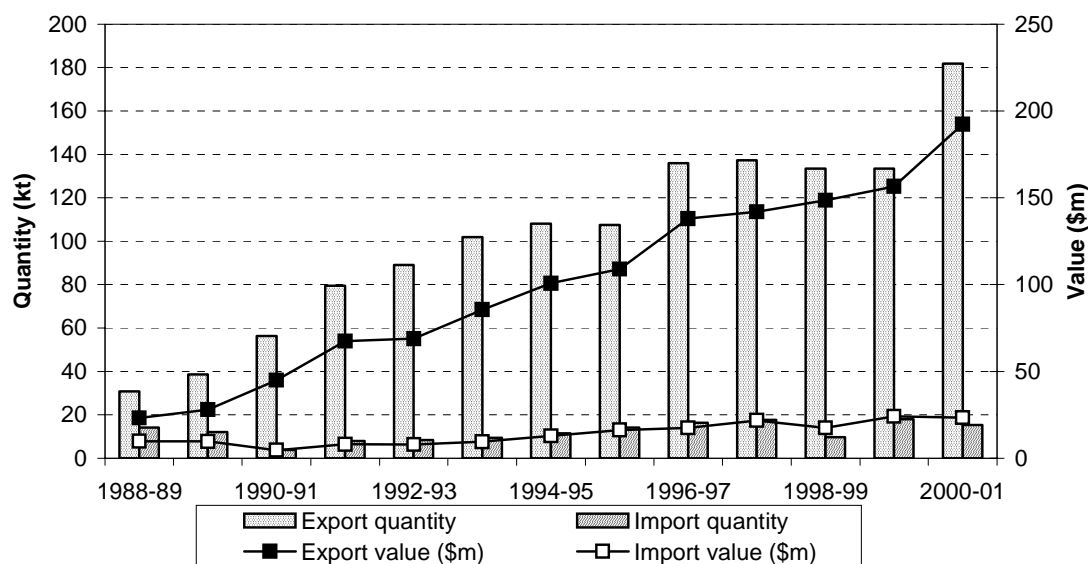
This view is supported by Mid-Murray Citrus Growers Inc., which explained some of the reasons why South African fruit is inferior in quality to Australia's:

They [South Africa] have a fruit quality — and mainly because of colour because they're actually geographically north of us — about the equivalent to Narromine, so they can't get the deep colour that the Australian fruit can get. They have probably a higher level of wind blemish ... they will always probably operate 2, 3, 4 dollars below Australia, but they have significantly lower costs. (trans., p. 214)

Further, Australia is well placed, on the ground of proximity, to supply fresh citrus to the Asian markets.

Since 1988-89, the Australian citrus industry has increased the export of fresh citrus produce substantially (figure 2.4). In contrast, the volume of fresh citrus imports has remained relatively stable.

Figure 2.4 Imports and exports of fresh citrus^a



^a Fresh citrus includes dried citrus.

Source: ABS unpublished trade data.

The number of countries to which Australia exports has also increased. In 1994-95, Australia exported fresh citrus to 35 countries — mainly to Hong Kong (SAR of China) Malaysia, the United States, Singapore, Indonesia, New Zealand and Japan. By 2000-01, this had increased to 48 countries, although around 70 per cent of total exports go to four countries: Hong Kong (SAR of China), Malaysia, the United States and Singapore (table 2.5).

The United States and Hong Kong imported mainly navel oranges in 2000-01, while other countries imported a mixture of citrus varieties, including mandarins (60 per cent of total citrus exported to Indonesia), lemons and limes (13 per cent of total citrus exported to Japan), and valencias (at least 30 per cent of total citrus exported to Singapore, Malaysia, Japan and New Zealand) (ABS 2001b).

Navel oranges tend to be the most popular variety for exports, in terms of quantity and value. In 2000-01, 54 per cent of the total quantity, and 60 per cent of the total value, of fresh citrus exports were navel oranges.

After navels, mandarins and valencia oranges were the most popular export varieties. Although valencia oranges accounted for 27 per cent of the total volume of fresh citrus exports, they accounted for only 18 per cent of the total value. In

contrast, mandarins accounted for only 15 per cent of the total volume, but accounted for 19 per cent of the total value (ABS 2001b).

Table 2.5 Export volumes and nominal values of Australian fresh citrus, by country, 1997-98 to 2000-01

| | 1997-98 | 1998-99 | 1999-2000 | 2000-01 |
|----------------------------------|----------------|----------------|----------------|----------------|
| <i>Export quantity (kt)</i> | | | | |
| Hong Kong (SAR of China) | 15.3 | 30.9 | 27.4 | 53.6 |
| Malaysia | 34.2 | 23.5 | 24.1 | 36.7 |
| United States | 22.9 | 23.6 | 29.2 | 21.7 |
| Singapore | 22.1 | 22.7 | 15.8 | 20.1 |
| Indonesia | 13.5 | 3.9 | 5.8 | 11.8 |
| New Zealand | 8.1 | 9.9 | 5.9 | 10.7 |
| Japan | 10.6 | 9.6 | 15.0 | 9.3 |
| All others | 10.6 | 9.7 | 10.4 | 17.9 |
| Total | 137.3 | 133.6 | 133.5 | 181.9 |
| <i>Export value (\$m)</i> | | | | |
| Hong Kong (SAR of China) | 14.5 | 33.4 | 27.1 | 49.7 |
| Malaysia | 24.8 | 19.7 | 19.2 | 30.0 |
| United States | 35.1 | 37.3 | 47.9 | 38.2 |
| Singapore | 17.3 | 19.7 | 14.0 | 17.7 |
| Indonesia | 17.9 | 4.2 | 6.7 | 12.3 |
| New Zealand | 6.6 | 8.8 | 5.4 | 7.5 |
| Japan | 15.7 | 13.9 | 24.9 | 14.3 |
| All others | 9.9 | 11.5 | 11.4 | 22.7 |
| Total | 141.9 | 148.5 | 156.6 | 192.3 |
| <i>Average unit value (\$/t)</i> | | | | |
| Hong Kong (SAR of China) | 943.4 | 1 082.1 | 991.8 | 926.4 |
| Malaysia | 725.4 | 839.9 | 796.4 | 816.9 |
| United States of America | 1 534.6 | 1 580.9 | 1 643.2 | 1 759.0 |
| Singapore | 781.6 | 869.9 | 882.7 | 880.6 |
| Indonesia | 1 325.4 | 1 084.5 | 1 164.6 | 1 042.9 |
| New Zealand | 817.0 | 886.3 | 912.8 | 698.8 |
| Japan | 1 489.2 | 1 457.2 | 1 665.9 | 1 526.2 |
| All others | 935.4 | 1 182.8 | 1 087.6 | 1 266.3 |
| All citrus | 1 033.3 | 1 111.4 | 1 173.0 | 1 057.2 |

Source: ABS unpublished trade data.

Over the period 1997-98 to 2000-01, exports to the United States represented 17 per cent of the total quantity and 25 per cent of the total value, of Australian citrus

exports. The other six main export destinations accounted for around 75 per cent of the export quantity and 67 per cent of the total value of Australian citrus exports (table 2.5).

The average unit value for all citrus has been relatively stable over the period 1997-98 to 2000-01, although there has been some variation in average unit values for particular markets during the period. In the United States, Malaysia, Singapore and 'All others' they rose strongly, but in Indonesia and New Zealand they fell.

The highest average unit values (in \$A terms) are paid in the United States and in Japan. For example, over the period 1997-98 to 2000-01, the United States paid an average of \$1620 per tonne and Japan paid an average of \$1601 per tonne for navels. The average for all other countries was \$923 per tonne. Differences in the quality of fruit sold in particular export markets explain part of the price gap.

Exports of Australian citrus fruit to northern hemisphere countries, such as the United States and Asian countries, normally occur during the months when fruit is in season in Australia but not in those countries. For example, Australian navels sold to the United States and most Asian countries tend to peak during the months of June to October, while Australian valencia exports tend to peak towards the end of the calendar year.

Based on information from the Queensland Fruit and Vegetables Growers, around 21 per cent of mandarins produced in Queensland in 2000 were supplied as fresh fruit to export markets. Mandarins are Queensland's leading horticultural export, valued at \$24 million in 2000 (Queensland Fruit and Vegetables Growers, sub. 81, p. 5). The three main destinations for mandarins are Indonesia, Hong Kong and Singapore. Murcott mandarins are the preferred variety for export markets.

Imports

Relative to its exports, Australia imports a small quantity of citrus fruit. Since 1988-89, imports as a proportion of total available fresh citrus fruit in the Australian market have ranged from 1 to 3 per cent.¹¹ Since 1991-92, citrus imports have been between 3 to 6 per cent of the gross value of total available citrus. In 2000-01, Australia imported approximately 15 kt of fresh citrus, which had a value of around \$23 million (figure 2.4).

¹¹ Total available fresh citrus in Australia is defined as domestic production of fresh citrus plus imports of fresh citrus.

The main citrus imports are oranges (principally navels), followed by lemons and limes. Orange imports generally increase between December and April, when navels are not in season in Australia. Most imported oranges originate in the United States. According to BGP International, imports of particular citrus fruit occur when these fruit are not in season in Australia and the domestic industry cannot supply sufficient volumes. It stated that:

Navel oranges, lemons and red grapefruit are the main citrus fruits imported. Imports of these fruit are driven totally by the inability of the domestic industry to supply or supply in sufficient volume.

Navel imports start in December when there is no domestic production and finish in April/May when new season domestic fruit commences. Red grapefruit follows a similar pattern. During the period December – March there is often a shortage of good quality lemons and imported lemons are used to keep the market supplied. (sub. 40, p. 2)

2.4 Juice markets

The demand for juice products is affected by a number of factors including their prices, prices of substitutes, the income levels and tastes of consumers, as well as population growth rates. The United States, Canada and Europe are considered relatively mature markets and therefore demand for juice products in these countries is not expected to grow rapidly. Australia is similarly regarded, with a relatively high per capita consumption.

Orange juice is considered a luxury item by many in eastern Europe and Russia. With income levels in these economies increasing in recent years, so has their consumption of orange juice products. Economic growth in some developing countries will also have a major effect on the demand for oranges and orange juice products.

Within Asia, Japan and South Korea are significant sources of demand for orange juice, while Hong Kong, Thailand and Taiwan have relatively low per capita consumption, which can be expected to rise (Commodity Trading 2001).

While the domestic market is not expected to grow rapidly, according to the Australian Food and Grocery Council (sub. 83, p. 3), the demand for juice products in general has been growing, but with variation between market segments. Berri Limited stated that:

Domestically, the juice market has grown in recent years. For example, juice sales through grocery outlets have grown 9.2 per cent in the last year. (sub. 80, p. 9)

Although the demand for fruit juice products (including fresh juice) has increased in recent years, the juice market competes with other beverages for market share. The Australian Food and Grocery Council stated that:

Citrus juice competes not only against other juices such as pineapple, tomato and apple, but also against similar products such as fruit juice drinks, fruit drinks and fruit cordials, and dissimilar products such as herbal teas, carbonated soft drinks, mineral water, milk and flavoured milks. (sub. 83, p. 4)

Further, according to Berri Limited, the juice industry has low margins and the ability to increase the price of fruit juice drinks is limited by the retail price of other beverages:

One of the key profitability challenges for the fruit juice/drink category is that prices (and margins) are low. Although Australian prices are low compared with overseas markets for fruit juice, the opportunity to increase fruit juice prices within Australia is limited because substitutes are also priced at relatively low levels. For example, comparisons with the UK show that Australian prices are significantly lower: Australian 2 litre Coke prices are 71 per cent of UK Coke prices; and Australian 1 litre milk prices are 50 per cent of UK milk prices. (sub. 80, p. 4)

Berri's experience is that consumer price sensitivity is high within the total beverage market, which leaves the juice industry vulnerable to price changes (increases) or changes in relativities (for example, higher juice prices compared to soft drink prices). Consumers are aware of and are highly responsive to price/value changes, and readily switch between juice and other substitute categories such as milk and soft drinks. (sub. 80, p. 10)

Fresh juice markets

The strong competition from FCOJ imports has encouraged Australian citrus growers to improve the quality of their valencia oranges, to ensure that a higher proportion are suitable for processing for fresh juice in the domestic market. Over the past four to five years, sales of fresh juice in Australia have increased, with approximately 80 per cent of this growth due to new citrus consumption rather than substitution for other citrus juice products (SARDI 2001a).

The consumption of fresh juice increased by 23 per cent to 77.2 megalitres between 1999 and 2001, and is expected to increase further (Australian Fruit Juice Association, sub. 76, p. 1). According to Berri Limited, there has been a 17 per cent increase in the sales volume of fresh juice over the last 12 months, partly due to marketing and promotional activities geared to converting consumers to fresh juice from other juice products and substitute beverages (sub. 80, p. 9).

There is evidence that consumers are prepared to pay more for fresh juice than for reconstituted concentrate juice or fruit drinks based on concentrate juice. According

to Berri Limited (sub. 80, p. 7), the retail price per litre of fresh fruit juice is \$1.94 compared with \$1.25 for carbonated drinks and \$1.49 for cordial. Berri Limited stated that:

The emergence of the fresh juice sector has developed a market niche which can provide higher returns for citrus compared with concentrate which competes directly against international like material. (sub. 80, p. 16)

Although Australian consumers are willing to pay more for fresh juice — which is priced around 30 per cent higher than milk and around 55 per cent higher than carbonated beverages — Berri Limited’s consumer research found that any attempt to increase significantly the price relativities between fresh juice and other drinks would result in a loss of market share for fresh juice.

The increase in the demand for fresh orange juice from Australian retail outlets in recent years may be due partly to a renewed consciousness of eating and living healthily (Kennedy 2001). A recent study found that, although the price of fresh juice (referred to as NFC) in the United States remained stable (or increased) during 1997-98 and 1998-99, the demand for it increased. The factors identified by the authors as possible reasons for this included:

- changing consumer preferences toward products that consumers perceive to be less ‘processed’ and more ‘natural’ (fresh juice is perceived to be closer to freshly squeezed);
- changing consumer preferences for increased convenience (fresh juice is more convenient to use than FCOJ);
- increasing consumer income during the 10-year study (since fresh juice orange juice is a ‘normal’ good, increases in income lead to increases in quantity demanded); and
- increasing prices of fresh juice substitutes (Mims, Wysocki and Weldon 2002).

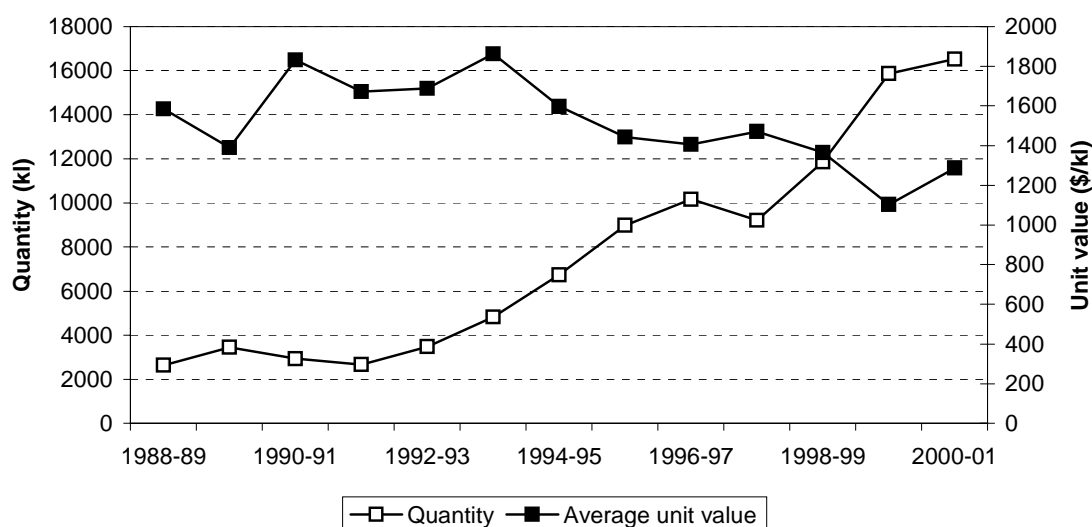
Australian processors have increased their exports of fresh juice. Between 1988-89 and 2000-01, the volume of exports of fresh juice grew by 526 per cent (figure 2.5). Over the same period the average unit value declined slightly. Countries that import a large share of Australia’s fresh orange juice include Japan, Hong Kong, China, Indonesia, New Zealand, Malaysia and Thailand.

FCOJ market

FCOJ is used to produce a variety of products including reconstituted orange juice, cordials and carbonated drinks.

Within the juice category that uses FCOJ, the demand for fruit juice-based carbonated soft drinks has been declining as the demand for still water and other ‘new age’ beverages (such as energy drinks) increases. The Australasian Soft Drink Association expects little growth in sales of citrus-based carbonated beverages and cordials (sub. 73, p. 3).

Figure 2.5 Export quantity and real average unit values of fresh orange juice, 1988-89 to 2000-01^a



^a Fresh (NFC) orange juice is unfermented, not containing added spirit and not frozen. Real values were estimated using the Gross Domestic Product deflator with 2000-01 as the base year.
 Source: ABS unpublished trade data.

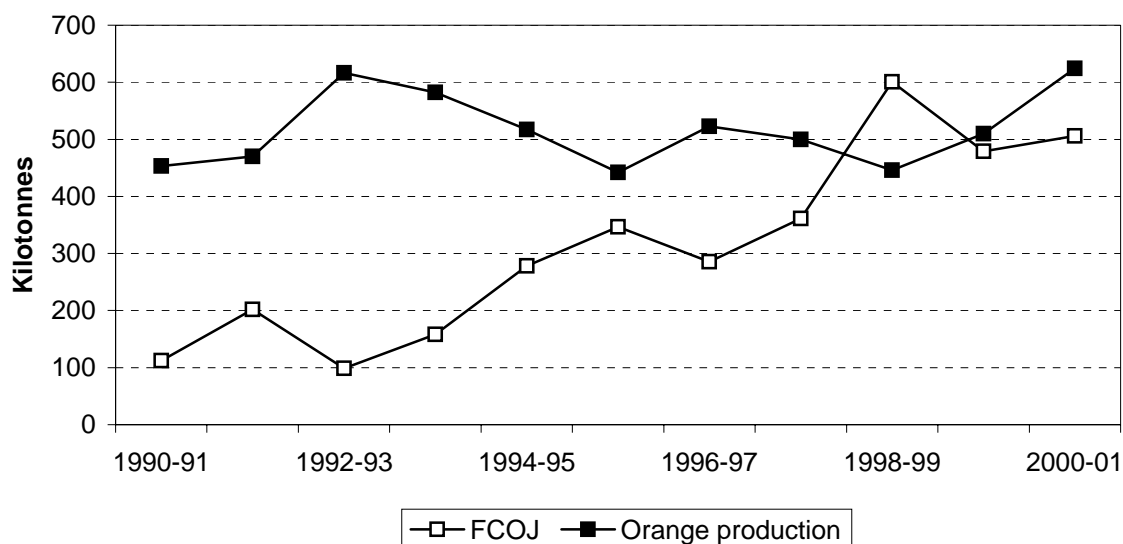
According to Intraust Foods, Australian consumption of products derived from FCOJ is equivalent to the use of 390–430 kt of valencia oranges. On average, Australia produces around 300 kt of valencia oranges a year, most of which goes to meet the demand for fresh fruit and juice. Australia therefore no longer supplies enough oranges to meet its consumption of FCOJ. Furthermore, even if more Australian oranges were used for FCOJ, according to Berri Limited, Australian consumers are unwilling to pay more for juice made from Australian FCOJ concentrate (sub. 80, p. 9). Therefore, the domestic demand for FCOJ has to be met by imports.

FCOJ imports

Historically, the Australian citrus industry grew mainly valencias, which were predominantly processed to meet Australia’s demand for orange juice products, with FCOJ imports meeting the difference between domestic supply and demand. In

years when production was low, FCOJ imports usually increased to meet the domestic demand for Australian juice products (figure 2.6).¹²

Figure 2.6 **Quantity of imported FCOJ and domestic production of oranges, 1990-91 to 2000-01^{a, b}**



^a The annual FCOJ import data were aggregated from monthly data. For some months, the units of measure for quantity were litres, while for other months they were kg of TSS. To allow for consistent aggregation of monthly data, FCOJ import data were converted to kt equivalent of fruit. The conversion factors used for orange juice were: 455 litres equal 1 tonnes of oranges; and 47 kg of TSS equal 1 tonne of oranges. ^b Orange production data for 1990-91 to 1999-2000 were from the ABS, while the 2000-01 data were from the ACG.

Source: ABS unpublished trade data; ACG (2001b).

Prior to 1994-95, Australia's reliance on FCOJ imports was low. In 1990-91, Australia imported 112 kt (fresh fruit equivalent)¹³ of FCOJ. Since then, however, a number of factors — including reduced tariffs on FCOJ imports, removal of the Australian content sales tax concession and strong competition from Brazil — have resulted in an increase in the share of low cost, high quality imported FCOJ in the Australian market. FCOJ imports increased by 351 per cent between 1990-91 and

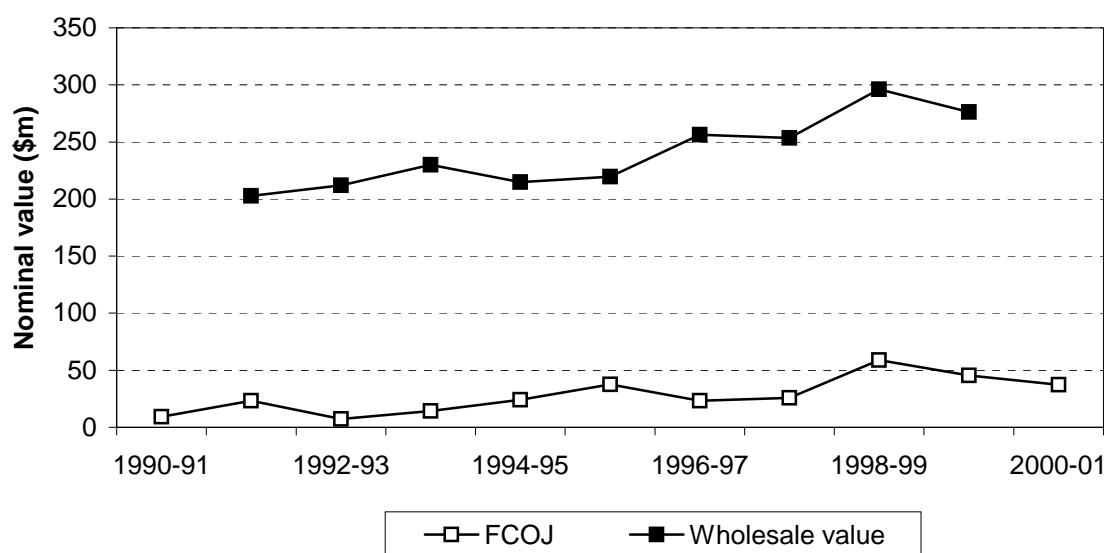
¹² The analysis of imports in this section is based on the ABS trade data for frozen orange juice, unfermented and not containing added spirit, whether or not containing added sugar or other sweetening matter. It is assumed that this product, 'frozen orange juice', is predominantly in the concentrated form.

¹³ In order to gain some perspective on the tonnes of fruit consumed by the processing sector, juice products were converted from kg of TSS (or litres) to tonne equivalent of fruit. TSS indicates the quality and flavour of the juice. It measures the 'sugar' content of juice (measured in brix). Imports of FCOJ were converted to tonne equivalent of fruit using the conversion factor: one tonne of oranges produces 455 litres (or 47 kg of TSS) of FCOJ.

2000-01, at an average annual rate of 16 per cent, to around 506 kt (fresh fruit equivalent).¹⁴

Since 1990-91, Australia has significantly increased its importation of FCOJ relative to its domestic production of oranges. Nevertheless, the wholesale value of Australian production of oranges is still considerably higher than the value of FCOJ imports (figure 2.7). Even in 1998-99, when the fresh fruit equivalent imports of FCOJ were higher than domestic production of oranges, the wholesale value of orange production was five times the value of FCOJ imports.

Figure 2.7 **Nominal value of imported FCOJ and wholesale oranges, 1990-91 to 2000-01^a**



^a The annual FCOJ import value data were aggregated from monthly data.

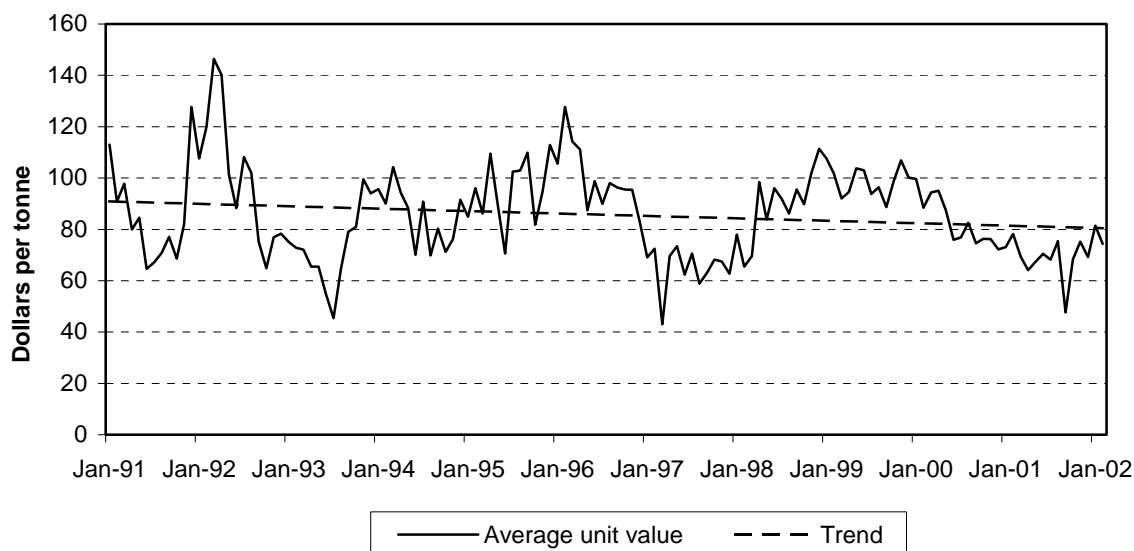
Source: ABS unpublished production and value data; ABS unpublished trade data.

Australia produces around 1 per cent of world citrus, and therefore cannot influence the world price. The long-term nominal unit value of FCOJ imports has been volatile around a modest downward trend over the past ten years (figure 2.8). The unit value of FCOJ imports in February 2002 was A\$74 per tonne.¹⁵

¹⁴ In 2000-01, 93 per cent of FCOJ imports originated from Brazil.

¹⁵ The unit values for FCOJ imports derived from customs data do not reflect the current world prices for FCOJ. This is because the customs data record the quantities and values of imported FCOJ coming into Australia in each month. However, for any particular month, the unit value of FCOJ imports is likely to be based on a contract price that was derived from the world price of FCOJ up to 12 months (or more) earlier. Therefore, there may be a significant lag between the unit values of FCOJ imports from the Australian customs data and the world price.

Figure 2.8 **Nominal average unit value of imported FCOJ, January 1991 to February 2002^{a, b}**



^a Unit value of FCOJ imports is derived by dividing the value of imports by the quantity imported. Although unit value does not represent the actual price paid for imported FCOJ, it can be used as an indicator of the average price. ^b Unit value is calculated based on a tonne of fresh fruit equivalent. For some months, the units of measure used for quantity were litres, while for other months they were kg of TSS. To allow for consistent aggregation of monthly data, FCOJ import data were converted to tonnes equivalent of fruit. The conversion factors used for orange juice were: 455 litres equal 1 tonne of oranges; and 47 kg of TSS equal 1 tonne of oranges.

Source: ABS unpublished trade data.

Only a few countries — the most dominant of which is Brazil — specialise in growing oranges purely for FCOJ (Baur and Orazem 1994). The competitive advantage of imported FCOJ in terms of price and quality has led to a decrease in the proportion of domestically produced oranges processed into FCOJ.

Countries such as Brazil (responsible for providing 80 per cent of world FCOJ exports) and the United States have a competitive advantage over Australia in producing FCOJ due to a number of factors including: lower input costs, such as labour and transport; natural conditions, such as rainfall and temperature levels, which are favourable to the growing of oranges for processing into FCOJ; and larger-scale operations with lower unit costs in both the United States and Brazil.¹⁶

¹⁶ In Australia, production of oranges occurs mainly in South Australia, Victoria and New South Wales. In the United States and Brazil orange production is geographically concentrated in two States — Florida and São Paulo, respectively.

Further, the quality of valencia oranges for processing into FCOJ in Australia is not as high as those in Brazil or the United States, as noted by the Food and Beverages Importers Association:

Brazilian and US FCOJ are sought after by processors because of their quality, especially the ‘sweetness’ factor. The higher the ratio of fruit sugar to acid, the sweeter and more highly regarded the juice. Typically, the ratio for Brazilian FCOJ is 15–17 per cent. Juice companies when packing 100 per cent long life orange juice prefer a minimum ratio of 15. Australian Valencia FCOJ would typically fall well short of that ratio. (sub. 64, p. 2)

2.5 Market links

Since the profit margins from selling citrus fruit in the fresh fruit and fresh juice markets are higher than from selling produce in the FCOJ market, growers target the fresh fruit (domestic and/or export) and fresh juice markets. Fruit unsuitable for or surplus to the requirements of these markets is sold for processing into FCOJ. This is because citrus fruit is perishable and unless fresh produce is marketed on time, it is usually converted into processed products (Kidane and Gundawardana 1997). There are links between the three main market outlets (fresh fruit, fresh juice and FCOJ). According to the ACG:

Each segment has different demand characteristics and each is subject to different degrees of international competition. There is also some substitution at the margin between segments which comes about through supply availability and demand behaviour of consumers. Because of these interactions between segments and the different demand conditions in each segment the process of price formation is complex. (sub. 72, p. 13)

Prices received for oranges can differ significantly across the markets (section 2.2). However, some participants considered that their returns from the fresh fruit market can also be affected by the price of FCOJ, which acts as a floor price across all markets for all orange varieties including navels sold in the domestic fresh fruit market. It was suggested that this effect is most marked in a season when Australia’s crop production is higher than average. This is because buyers know that growers who are reluctant to reduce their selling price will have no choice but to dump their crop when it perishes, or sell it to processors at the lower FCOJ price.

One grower commented that:

Unfortunately fruit purchasers use the cheaper FCOJ price as a mechanism for setting the price across all sectors. This lowers the price overall paid to growers even though they might be producing fruit for example for the local fresh fruit market. (V. A. and F. Nardi, sub. 13, p. 1)

Similarly, the Mid-Murray Citrus Growers Inc. argued:

A low world FCOJ price has the effect of bringing down both fresh fruit & fresh juice prices on a year of large Australian crop supply; when fruit will be offered into the fresh fruit or juice market at just above the relative world price equating from a low world FCOJ price. (sub. 9, p. 2)

These claims were supported by the ACG, although it noted that fruit going to fresh juice obtains a premium above the FCOJ price:

Record low world prices for orange juice concentrate from Brazil during the latter half of 2000 considerably increased the pressure (downwards!) on domestic orange prices in Australia, setting unsustainable low base prices for both processing and domestic fresh market fruit. (2001e, p. 1)

Prices received for oranges of processing quality are dominated by import prices for frozen concentrated orange juice (FCOJ). These, in effect, set a floor price in the Australian market for processed oranges that still account for close to one half of production. Producers can get a premium over the price of imported FCOJ by differentiating their product and marketing its superior attributes (for example, domestic sales of fresh orange juice). (sub. 72, p. 13)

Berri Limited also recognised that it is only fruit surplus to fresh juice and fresh fruit requirements that is sold at the FCOJ price:

I guess we would believe that it's very well known by growers, packers and marketers ... that once there's one tonne of surplus oranges to the market requirements basically the reference point then is the world parity FCOJ price (trans., p. 466).

In trying to explain the relationship between prices received by orange growers and the FCOJ import price, Interaust Foods (sub. 65, pp. 2–3) claimed that in a year when the majority of the navel crop is of a standard suitable for the fresh fruit market, especially export markets, the returns to growers are very good.

Recently, in a 'normal' valencia crop year, production (above that sold for fresh fruit) is generally just adequate to meet the demand for valencias for processing into fresh juice, with perhaps a small proportion left for processing into FCOJ.

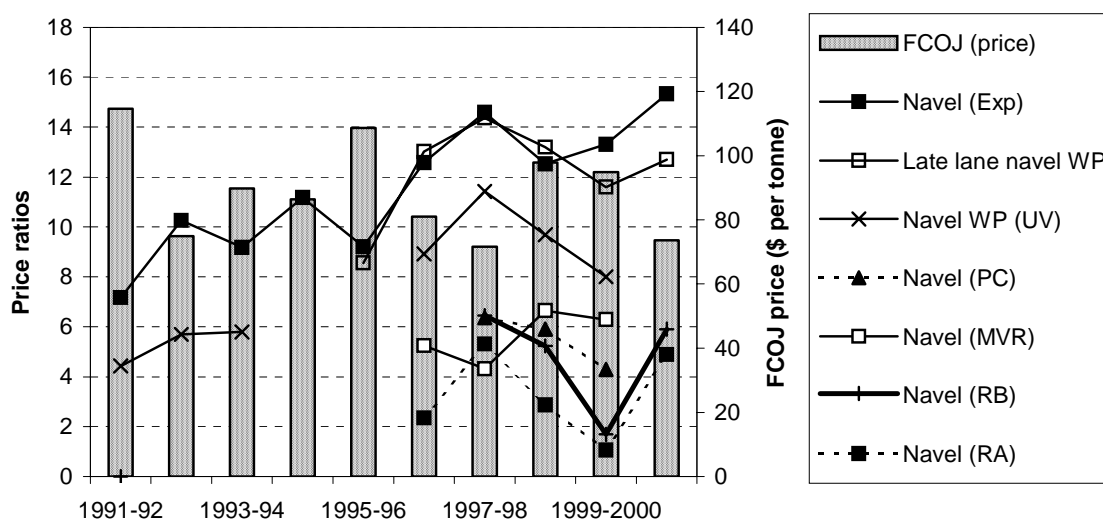
As the fresh juice market is currently 'import-proof', the prices received for valencias provide better returns for growers than valencias sold for FCOJ.

In order to examine the price links between the sub-markets for oranges, the Commission has developed ratios of navel and valencia orange prices (and unit values) relative to the FCOJ unit value (measured in dollars per tonne of fresh fruit

equivalent) (figures 2.9 and 2.10). In the following discussion unit values are referred to as prices.¹⁷

In a particular year, if the FCOJ price determines the price paid to growers (that is, the two are the same) the price ratio will be equal to one.¹⁸ Across time, if the price ratio remains relatively stable, this indicates that prices move together (suggesting that the FCOJ price influences changes in the price of oranges for fresh fruit and juice).

Figure 2.9 Ratios of navel orange prices in selected market outlets to the FCOJ import price, 1991-92 to 2000-01^{a, b, c}



^a Ratios were estimated by dividing the price (unit value) in a selected market by the FCOJ unit value for that year. ^b FCOJ (price) shows the unit value of FCOJ imports per tonne (fresh fruit equivalent). ^c Navel (Exp) shows the ratio of navel export unit value, to FCOJ unit value. Late lane navel WP shows the ratio of fresh late lane navel wholesale price, in Sydney and Melbourne, to FCOJ unit value. Navel WP (UV) shows the ratio of navel wholesale unit value, to FCOJ unit value. Navel (PC) shows the ratio of PC farmgate estimates of navel unit value, to FCOJ unit value. Navel (MVR) shows the ratio of navel farmgate price from the Murray Valley region, to FCOJ unit value. Navel (RA) and Navel (RB) shows the ratio of navel farmgate price from the Riverina region, to FCOJ unit value.

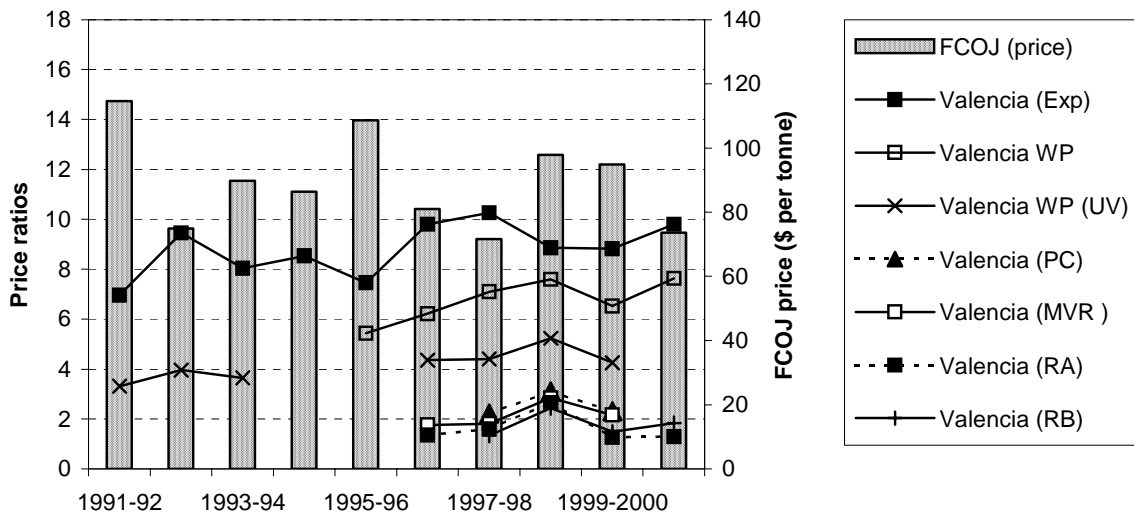
Source: ABS unpublished trade data; ABS unpublished production and value data; Ausmarkets unpublished data; Murray Valley Citrus Marketing Board (sub. 75, p. 29); Riverina Citrus (attachment to sub. DR132).

¹⁷ The footnotes to figures 2.9 and 2.10, describe whether a particular series relates to a price or a unit value.

¹⁸ The FCOJ price is an import parity price and therefore, while close to the price paid by processors, it does not include the cost of delivery to the processor and any local storage costs from the port. This means that a value slightly higher than one would indicate more accurately that the FCOJ price sets the actual price received by growers.

The available evidence on price relativities indicates that FCOJ prices have limited influence on actual prices or price movements of navel oranges. The ratios of farmgate prices for navels based on information from the Murray Valley and Riverina regions and on the Commission's estimates of the average farmgate price were generally well above one (except in Riverina in 2000-01) — that is, these prices were higher than the FCOJ price. The price ratios also fluctuated from year to year, showing that a given percentage change in the price of FCOJ was not mirrored by a similar percentage change in the price of navels.

Figure 2.10 Ratios of valencia orange prices in selected market outlets to the FCOJ import price, 1991-92 to 2000-01^{a, b, c}



^a Ratios were estimated by dividing the price (unit value) in a selected market by the FCOJ unit value for that year. ^b FCOJ (price) shows the unit value of FCOJ imports per tonne (fresh fruit equivalent). ^c Valencia (Exp) shows the ratio of valencia export unit value, to FCOJ unit value. Valencia WP shows the ratio of fresh valencia wholesale price, in Sydney and Melbourne, to FCOJ unit value. Valencia WP (UV) shows the ratio of valencia wholesale unit value, to FCOJ unit value. Valencia (PC) shows the ratio of PC farmgate estimates of valencia unit value, to FCOJ unit value. Valencia (MVR) shows the ratio of valencia farmgate price from the Murray Valley region, to FCOJ unit value. Valencia (RA) and Valencia (RB) shows the ratio of valencia farmgate price from the Riverina region, to FCOJ unit value.

Source: ABS unpublished trade data; ABS unpublished production and value data; Ausmarkets unpublished data; Murray Valley Citrus Marketing Board (sub. 75, p. 29); Riverina Citrus (attachment to sub. DR132).

FCOJ prices appear to have a greater influence on valencia prices than on navel prices. The farmgate ratios are above one showing that the average price received by growers for their valencia oranges, based on these estimates, are higher than the FCOJ price. The valencia price ratios are more stable than the price ratios for navels. The exceptions are valencias sold for export, fresh fruit in wholesale markets and the year 1998-99. In that year, although FCOJ prices rose by around

36 per cent from the previous year, the price of valencias doubled. This was due largely to a relatively low level of production in 1998-99.

This suggests two major conclusions regarding the influence of imported FCOJ on prices received for Australian oranges. First, the FCOJ import price does not set the actual prices received by growers for all oranges. That is, the FCOJ price is not the same as the average price received by growers for oranges sold into fresh fruit and fresh juice markets. This is because consumers do not view FCOJ, fresh fruit and fresh juice as the same product. For instance, consumers are willing to pay a higher price for valencias sold as fresh fruit or fresh juice than they are for fruit processed as FCOJ. However, when the supply of oranges exceeds the requirements of the fresh fruit and fresh juice markets, surplus fruit is generally sold at the FCOJ price. The Grove Fruit Juice company supported this view stating:

... FCOJ pricing no longer has an impact on Australian fruit, processing into concentrate is now only an opportunity to soak up surplus tonnage in high volume years. (sub. DR117, p. 1)

Second, while the FCOJ price does not set the price of all oranges, it does seem to exert an influence on the price movements of valencia oranges (figure 2.10).

FINDING 2.3

The price of FCOJ imports has a direct impact on prices of Australian oranges sold for processing into FCOJ, but does not determine the price of all oranges. It does, however, exert some influence on movements in prices of valencia oranges.

The year 2000-01 was an unusual year

Much of the concern among orange growers about the impact of the FCOJ import price on their returns, related to their poor experience in 2000-01. That was an atypical year, when a large proportion of the navel crop was of a quality and size unsuitable for sale as fresh fruit. This led growers to turn to the processing market to absorb the crop. Processors, however, will only purchase uncontracted, unplanned and unwanted fruit at lower prices, having regard to the market for processed fruit products and the costs of holding increased stocks (Interaust Foods, sub. 65, p. 2). This undoubtedly affected the returns to growers during 2000-01.

Various submissions stated that the 2000-01 returns from fresh export markets were low because of serious quality problems from the 2000 citrus crops (especially navels). A large share of this poor quality and small sized fruit was unsuitable for fresh exports, especially to the US market.

Coincidentally, there was also an unusually large valencia crop. Not all of this crop could be consumed in the fresh fruit or fresh juice markets. The only other market outlet available was the processing market for FCOJ — in which direct competition from FCOJ imports is strong. This situation was aggravated by a collapse in the world price of FCOJ around October 2000, which led buyers of FCOJ imports to lock in their supplies at the low price as far ahead as March 2001. As stated by Interaust Foods:

It turned out to be an ‘on year’ or exceptionally large crop by Australian standards meaning that the growers would have more like 260–270 000 tonnes of fruit looking to put to processing (261 000 tonnes actually got processed). This would mean some 70–90 000 tonnes of it was ‘uncontracted fruit’ not already destined for NFC. This fruit, if processed, would have to go to concentrate (FCOJ), not NFC. It would therefore compete with imported FCOJ at ruling market prices. The Australian Valencia season starts in October each year through to March or even a little later. The juice converters/bottlers would have already contracted much earlier for their juice raw material requirements for the Australian summer of 2000-01. Unfortunately for the Australian growers, there had just been a collapse in the world price of FCOJ in Sept/October 2000 when, due to a combination of high inventories and competitive pressures, a short price war broke out amongst the Brazilian FCOJ suppliers. Buyers the world over had naturally capitalized on this, having little choice to do so as, if they did not, their competitor doubtless would, thus having a competitive advantage. The net result in the case of Australia was that the market, already covered until March 2001 or more, for those able to utilize some of the navel surplus of 2000, proceeded to buy forward a further 9–12 months. This left the Australian valencia surplus/bumper crop up against an almost fully covered market. Thankfully for many growers, the market leader in NFC devised a joint promotional plan to ‘mop up’ much of this fruit but nonetheless much of it got processed at low prices and quite an amount remained on trees and perished. (sub. 65, p. 3)

Similarly, Berri Limited stated that it was unusual because, even though valencia trees had been removed over the past 10 to 15 years, there was still a record valencia crop. It added that the Brazilian FCOJ price was lower than could normally be expected:

[The record valencia crop] coincided also with a very high Brazilian crop, high international frozen concentrated orange juice stocks and record low pricing because of a combination of those factors. But also what needs to be recognised is the two major FCOJ marketers in Brazil basically were competing for market share and they drove that price down perhaps at a lower level than they would have reasonably liked to have done themselves. This did have an impact internationally on all world markets, [not just] on the Australian market ...(trans., p. 465)

The ACG argued that the year 2000-01 was not unusual in that the coincidence of Brazilian overproduction and high volumes of Australian production occurs often:

I would say that that’s a regular occurrence in our industry, the fact of the Brazilian overproduction and that we have a high crop of oranges. It’s fairly regular in our

industry. So much to the point that I remember — I've been in the industry for going on nine years now, and we used to monitor the Brazilian production, our production and the price of FCOJ every month, and as soon as we had an indication that their crop was going to be large, and we were coming up to a big crop, we knew exactly what kind of prices we were going to get and the effect on the industry, so it's a cyclic thing. (trans., p. 165)

What the ACG does accept as unusual in this year was the large proportion of the navel crop being unsuitable for sale as fresh fruit.

...in terms of the year 2000-01 we had a lot of [navel] rind quality problems, which sort of exacerbated these [other] kind of circumstances. (trans., p. 165)

The Commission considers that the year 2000-01 was unusual for growers because of the coincidence of three events:

- a large proportion of the navel crop was unsuitable for sale as fresh fruit;
- an unusually large valencia crop; and
- a collapse in the world price of FCOJ (caused by a bumper crop in Brazil) around October 2000.

All of these events individually would have exerted some downward pressure on prices. However, their coincidence compounded growers' difficulties in this year to an unusual degree.

3 Growing sector

This chapter examines the characteristics of citrus growing, the financial performance of growers, and the international competitiveness of the Australian growing sector.

3.1 Characteristics of citrus growing in Australia

This section discusses several key features of citrus growing in Australia — namely, the large number of citrus enterprises, the diverse size of those enterprises, and their relative importance in terms of citrus production, as well as their degree of specialisation in citrus growing.

Number of enterprises

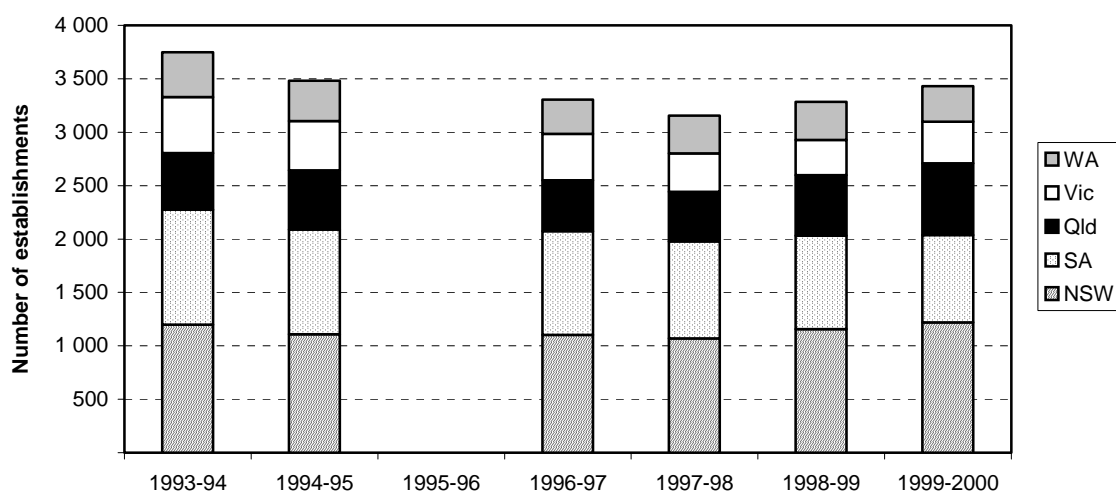
It is difficult to calculate the current number of enterprises in Australia producing citrus because the definition of what constitutes a citrus enterprise is ambiguous. Many enterprises that produce citrus also conduct other agricultural activities.

The ABS estimated that there were around 3444 establishments growing citrus fruit in Australia in 1999-2000. The ABS includes within this number all establishments that produced citrus fruit (regardless of their level of specialisation) and reported an estimated value of agricultural output (EVAO) of \$5000 or more.¹ This very low threshold means that the ABS estimate almost certainly overstates the number of establishments growing citrus commercially. For example, in the 1997 ABS census of agricultural establishments, 20 per cent of those growing citrus produced less than 2.5 tonnes of citrus for the year.

Between 1993-94 and 1997-98, the total number of citrus establishments declined, but there has been a slight increase since then. The number of establishments in New South Wales remained unchanged between 1993-94 and 1999-2000, but there were declines in Victoria (26 per cent) and South Australia (24 per cent), and an increase in Queensland (27 per cent) (figure 3.1).

¹ The EVAO is a measure of the extent of agricultural activity undertaken by an establishment, which is engaged mainly in agricultural production.

Figure 3.1 Total number of citrus establishments, 1993-94 to 1999-2000^{a, b}



^a This figure shows the number of agricultural establishments with an EVAO of \$5000 or more that grow citrus fruit. Estimates prior to 1993-94 have been excluded because of changes in the EVAO threshold — between 1982-83 and 1985-86 the threshold was \$2500 and over, between 1986-87 and 1990-91 it was \$20 000 and over, and in 1991-92 and 1992-93 the threshold was \$22 500 and over. Data for 1995-96 was not available.

^b Establishments in the Northern Territory are excluded (13 in 1999-2000).

Source: ABS unpublished production data.

Another source of information on the number of citrus establishments is the Australian Citrus Growers Inc. (ACG). It estimates that there are currently around 3000 citrus establishments in Australia, of which approximately 2430 are members of the ACG (sub. 72, p. 1).

Size of establishments

The growing sector is characterised by a large number of small enterprises. Around three-quarters of all orchards in the Riverland are less than 10 hectares, and more than 90 per cent are less than 20 hectares. Farms in the Murray Valley are larger than those in the Riverland, with 84 per cent of citrus establishments being less than 20 hectares (table 3.1).

In comparison to the Murray Valley and the Riverland, establishments in the Riverina tend to be larger, with 46 per cent of citrus orchards being less than 10 hectares.

However, some regions have a small number of relatively large enterprises. The Queensland Fruit and Vegetable Growers (sub. 81, p. 2) reported that the larger established independent orchards in the Mundubbera region were around 120 hectares, with a wave of ‘new’ producers in the district having more than

50 hectares. Murrumbidgee Irrigation Area (MIA) PowerPACT Rural Partnership Program and MIA Council of Horticultural Associations stated that there were 26 citrus establishments in the Riverina with citrus holdings over 50 hectares and eight with over 100 hectares (trans., p. 48).

Table 3.1 **Size of citrus orchards in the Murray Valley, Riverland and Riverina, 2001**

| | <i>Riverland</i> | | <i>Murray Valley</i> | | <i>Riverina</i> | |
|--------------------------|------------------|-------------------------------|----------------------|-------------------------------|-----------------|-------------------------------|
| | <i>Orchards</i> | <i>Proportion of orchards</i> | <i>Orchards</i> | <i>Proportion of orchards</i> | <i>Orchards</i> | <i>Proportion of orchards</i> |
| Ha | no. | % | no. | % | no. | % |
| Under 10 | 654 | 76 | 371 | 65 | 240 | 46 |
| 10 to 20 | 129 | 15 | 104 | 18 | 167 | 32 |
| Over 20 | 76 | 9 | 92 | 16 | 114 | 22 |
| Total^a | 859 | 100 | 567 | 100 | 521 | 100 |

^a Total may not add as a result of rounding.

Source: Citrus Growers of South Australia (sub. 79, p. 14); Murray Valley Citrus Marketing Board unpublished data; Riverina Citrus (attachment to sub. DR132).

The large number of small orchards may be attributed, in part, to Soldier Settlement schemes. The first Soldier Settlement scheme was implemented after World War I. The Government divided vast ‘squatter’ holdings into smaller agricultural lots for returned soldiers. Land blocks in the irrigation districts were devoted mainly to citrus and vines. After World War II, the Government implemented further settlement schemes for ex-servicemen. According to the Murray Valley Citrus Marketing Board (MVCMB):

The historical development of citrus growing in the Murray Valley was largely influenced by the post war soldier settler 25 acre blocks. After World War II conditions for taking up these allocations and the concessional loan on offer was that 75 per cent be planted to valencias and restriction of a maximum area of 25 acres. (sub. 75, p. 2)

Concentration of production

Citrus production in Australia is highly concentrated. Information from the 1997 ABS agricultural census indicated that 30 per cent of growers accounted for almost 90 per cent of citrus production, while 50 per cent of growers accounted for only 2 per cent of the industry’s production (table 3.2).²

² All citrus establishments in Australia were grouped into deciles according to total citrus production per establishment. There is an unequal distribution of production across the deciles. For example, establishments in the lowest decile produced a total of 27 tonnes of citrus, whereas those in the highest decile produced a total of 396 kilotonnes of citrus.

Table 3.2 **Decile of citrus production per establishment, 1997^a**

| <i>Decile</i> | <i>Average production per establishment</i> | <i>Range in production per establishment</i> | <i>Total production of all establishments</i> | <i>Proportion of total production</i> | <i>Cumulative proportion of total production</i> |
|---------------|---|--|---|---------------------------------------|--|
| | tonnes | tonnes | tonnes | % | % |
| Lowest | 0.1 | 0–0.35 | 27 | 0.0 | 0.0 |
| 2nd | 1.2 | 0.35–2.5 | 394 | 0.1 | 0.1 |
| 3rd | 4.6 | 2.5–7.3 | 1 507 | 0.2 | 0.3 |
| 4th | 11.4 | 7.3–18 | 3 766 | 0.6 | 0.9 |
| 5th | 27.1 | 18–41 | 9 026 | 1.4 | 2.3 |
| 6th | 57.7 | 41–80 | 18 987 | 2.9 | 5.2 |
| 7th | 110.2 | 80–144 | 36 918 | 5.7 | 10.9 |
| 8th | 192.6 | 144–253 | 63 929 | 9.9 | 20.8 |
| 9th | 345.3 | 253–462 | 114 647 | 17.8 | 38.6 |
| Highest | 1 193.9 | Over 462 | 396 363 | 61.4 | 100.0 |
| Total | 195.3 | | 645 564 | 100.0 | |

^a Deciles of production per establishment are estimated by ranking all establishments in Australia (3319) from lowest to highest according to total citrus production per establishment, and then dividing the establishments into ten equal or nearly equal sized groups. The ABS then removed 14 observations, representing the Northern Territory, to preserve confidentiality, causing some deciles to have fewer establishments.

Source: Unpublished ABS 1997 agricultural census data.

Concentration of production varies considerably across States. Queensland has the highest degree of concentration, with approximately 7 per cent of establishments producing around 83 per cent of output. The concentration of production was also substantial in Victoria, but slightly less in South Australia and New South Wales (table 3.3).

Product diversity

A large proportion of establishments growing citrus are also undertaking a range of other non-citrus agricultural activities. Such mixed farming is quite common in Australian agriculture and serves to reduce risks associated with reliance on a single product. For example, Golden Mile Orchard, which is located in the Mundubbera area of Queensland, has 2000 hectares devoted to citrus (oranges, mandarins and lemons), mangos, grapes, avocados and livestock. The orchard also runs cattle (Tourism Queensland 2001).³

³ Golden Mile Orchard has approximately 600 hectares devoted to horticultural production of which 330 hectares is planted with citrus (Golden Mile Orchard, pers. comm., 15 January 2002).

Table 3.3 **Decile of citrus production per establishment, by State, 1997^{a, b}**

| Decile | Range in production per establishment | Share of production | | | | | Share of establishments | | | | |
|--------------|---------------------------------------|---------------------|--------------|--------------|--------------|--------------|-------------------------|--------------|--------------|--------------|--------------|
| | | NSW | Vic | Qld | WA | SA | NSW | Vic | Qld | WA | SA |
| | tonnes | % | % | % | % | % | % | % | % | % | % |
| Lowest | 0–0.35 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 6.8 | 7.4 | 27.5 | 13.1 | 4.9 |
| 2nd | 0.35–2.5 | 0.0 | 0.0 | 0.2 | 1.0 | 0.0 | 6.8 | 9.0 | 22.5 | 20.6 | 4.1 |
| 3rd | 2.5–7.3 | 0.2 | 0.2 | 0.4 | 3.6 | 0.1 | 7.1 | 12.2 | 13.2 | 21.5 | 6.7 |
| 4th | 7.3–18 | 0.3 | 0.6 | 0.8 | 9.1 | 0.5 | 6.8 | 11.7 | 10.3 | 20.2 | 9.2 |
| 5th | 18–41 | 1.0 | 1.5 | 1.1 | 12.8 | 1.5 | 8.2 | 13.3 | 5.9 | 12.1 | 12.2 |
| 6th | 41–80 | 2.4 | 2.0 | 1.9 | 13.0 | 4.0 | 9.0 | 8.5 | 4.8 | 6.2 | 15.5 |
| 7th | 80–144 | 5.4 | 4.4 | 3.0 | 10.4 | 7.4 | 10.9 | 9.7 | 3.8 | 2.5 | 15.2 |
| 8th | 144–253 | 13.4 | 6.1 | 3.4 | 14.4 | 9.5 | 15.7 | 7.1 | 2.7 | 2.2 | 11.1 |
| 9th | 253–462 | 24.0 | 10.7 | 6.3 | 15.6 | 17.6 | 15.7 | 7.4 | 2.5 | 1.2 | 11.4 |
| Highest | Over 462 | 53.3 | 74.5 | 82.9 | 20.0 | 59.2 | 13.1 | 13.8 | 6.7 | 0.3 | 9.7 |
| Total | | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

^a For the definition of decile, see table 3.2, note a. ^b Since the patterns of production per establishment differ between States, there are different proportions of State establishments in each decile.

Source: Unpublished ABS 1997 agricultural census data.

Similarly, Keenan Partners (citrus growers in the Mildura region) explained:

Our orchard has been in constant change, in regard to alternative citrus varieties and alternate horticultural crops for the past 30 years or so, in response to market demand and specialty, endeavouring to maintain and improve farm profitability and sustainability. This has led from a total citrus production enterprise to diversification into avocados (Australian markets), cut flowers (export markets) and wine grapes (export driven) to remain viable. (sub. DR100, p. 1)

Accordingly, the notion of a citrus growing establishment, per se, is ambiguous. This is illustrated by the 1997 agricultural census, which shows that many citrus growers, particularly those that are small to medium size in terms of production, appear to be more dependent on other agricultural activities than they are on citrus. For example, the bottom 50 per cent of growers (in terms of citrus production) produced significantly greater quantities of pome fruit (apples and pears) and stone fruit (19.9 and 15.3 kilotonnes, respectively) than they did citrus (11.4 kilotonnes) (table 3.4).

The most common non-citrus agricultural activity undertaken by citrus establishments in Australia was grape production, followed by stone fruit, cattle, vegetables, sown pasture, pome fruit and nuts. Larger citrus producers tended to produce more grapes, while smaller citrus producers tended to produce more vegetables and run more cattle.

Table 3.4 **Other agricultural activities undertaken by citrus establishments, by decile of citrus production, 1997^a**

| <i>Decile</i> | <i>Grapes</i> | <i>Stone fruit</i> | <i>Cattle</i> | <i>Vegetables</i> | <i>Sown pasture</i> | <i>Pome fruit</i> | <i>Nut trees</i> | <i>Sheep</i> | <i>Cereal</i> |
|--|---------------|--------------------|---------------|-------------------|---------------------|-------------------|------------------|---------------|---------------|
| <i>Number of establishments undertaking non-citrus agricultural activities</i> | | | | | | | | | |
| | no. | no. | no. | no. | no. | no. | no. | no. | no. |
| Lowest | 68 | 89 | 86 | 60 | 46 | 24 | 35 | 10 | 7 |
| 2nd | 78 | 99 | 88 | 75 | 36 | 30 | 33 | 17 | 13 |
| 3rd | 105 | 113 | 60 | 49 | 35 | 35 | 22 | 19 | 9 |
| 4th | 129 | 112 | 56 | 44 | 31 | 28 | 15 | 13 | 7 |
| 5th | 142 | 121 | 30 | 34 | 21 | 24 | 8 | 20 | 15 |
| 6th | 157 | 105 | 28 | 26 | 24 | 22 | 12 | 12 | 10 |
| 7th | 161 | 93 | 20 | 20 | 14 | 14 | 7 | 7 | 12 |
| 8th | 146 | 83 | 20 | 25 | 8 | 18 | 8 | 11 | 18 |
| 9th | 132 | 61 | 24 | 23 | 14 | 10 | 9 | 8 | 13 |
| Highest | 128 | 48 | 30 | 26 | 22 | 10 | 21 | 8 | 19 |
| Total | 1246 | 924 | 442 | 382 | 251 | 215 | 170 | 125 | 123 |
| <i>Measure of other activities undertaken by citrus growers</i> | | | | | | | | | |
| | ha | kt | no. | ha | ha | kt | '000 | no. | no. |
| Lowest | 778 | 0.94 | 6 710 | 174 | 3 145 | 1.96 | 7.7 | 3 473 | 285 |
| 2nd | 732 | 0.86 | 7 237 | 268 | 5 945 | 1.19 | 9.2 | 4 493 | 1 990 |
| 3rd | 773 | 2.47 | 5 029 | 264 | 1 937 | 1.87 | 8.2 | 16 169 | 599 |
| 4th | 1 142 | 2.33 | 5 516 | 206 | 3 913 | 5.17 | 19.4 | 7 711 | 1 980 |
| 5th | 1 321 | 8.68 | 1 775 | 501 | 1 169 | 9.73 | 5.7 | 11 993 | 7 544 |
| 6th | 1 658 | 4.67 | 2 227 | 554 | 1 341 | 3.61 | 4.5 | 7 853 | 2 562 |
| 7th | 1 781 | 2.62 | 2 319 | 198 | 1 500 | 3.27 | 2.9 | 3 933 | 2 427 |
| 8th | 1 634 | 2.96 | 2 684 | 122 | 926 | 1.72 | 33.8 | 10 734 | 4 937 |
| 9th | 1 592 | 3.02 | 1 850 | 624 | 1 099 | 0.65 | 37.2 | 11 289 | 3 883 |
| Highest | 3 215 | 5.67 | 4 974 | 1 086 | 3 061 | 0.52 | 137.2 | 18 404 | 8 689 |
| Total | 14 626 | 34.23 | 40 321 | 3 997 | 24 036 | 29.69 | 265.8 | 96 052 | 34 896 |

^a For the definition of decile, see table 3.2, note a.

Source: Unpublished ABS 1997 agricultural census data.

The diversity of citrus establishments varies across States. Victoria, South Australia and Western Australia were the most diversified, with approximately 80 per cent of establishments undertaking some other activity. In contrast, a smaller number of establishments undertook some other activity in New South Wales and Queensland (table 3.5).

The number of citrus specialists varies considerably across different regions. The MVCMB estimated that only 26 per cent of citrus establishments (153) in the Murray Valley had more than 90 per cent of their farm area planted with citrus (MVCMB, pers. comm., 27 February 2002). The Queensland Fruit and Vegetable Growers estimated that there would be fewer than 100 producers, out of 350

members, that specialised in citrus production (sub. 81, p. 1). The proportion of specialists was relatively higher in the Riverina, with around 57 per cent of citrus establishments having more than 90 per cent of their farm area planted with citrus (attachment to sub. DR132).

Table 3.5 Proportion of citrus establishments undertaking non-citrus agricultural activities, by decile of citrus production and State, 1997^a

Per cent

| <i>Decile</i> | <i>NSW</i> | <i>Vic</i> | <i>SA</i> | <i>Qld</i> | <i>WA</i> | <i>Aust</i> |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Lowest | 76.0 | 84.4 | 95.8 | 67.2 | 85.7 | 77.4 |
| 2nd | 86.7 | 89.7 | 97.5 | 71.0 | 95.5 | 85.0 |
| 3rd | 79.5 | 88.7 | 90.8 | 69.8 | 91.3 | 83.8 |
| 4th | 76.0 | 82.4 | 88.8 | 59.2 | 81.5 | 79.0 |
| 5th | 72.2 | 74.1 | 88.1 | 53.6 | 66.7 | 76.0 |
| 6th | 74.7 | 75.7 | 81.3 | 73.9 | 55.0 | 76.6 |
| 7th | 61.7 | 64.3 | 78.9 | 50.0 | 50.0 | 68.7 |
| 8th | 62.4 | 80.6 | 73.1 | 69.2 | 57.1 | 67.8 |
| 9th | 55.5 | 78.1 | 69.4 | 25.0 | 75.0 | 61.4 |
| Highest | 48.3 | 78.3 | 63.8 | 65.6 | 100.0 | 59.9 |
| Average | 66.0 | 79.5 | 80.5 | 65.3 | 82.2 | 73.5 |

^a For the definition of decile, see table 3.2 (note a) and table 3.3 (note b).

Source: Unpublished ABS 1997 agricultural census data.

3.2 Financial performance

This section discusses profitability, land values, investment and indebtedness within the growing sector.

Profitability

Limited information is available on the financial performance of establishments engaged in citrus growing. As acknowledged by the ACG: 'there is no comprehensive up-to-date picture of grower financial performance in each of the growing regions' (sub. 72, p. 8).

In response to the position paper, a number of participants criticised the Commission for not carrying out an independent survey to obtain industry-wide information on the financial performance of citrus growers. For instance, Riverina Citrus stated that:

... the Commission has not fulfilled the terms or the requirements of the terms of reference in many areas. One example of this relates to the failure of the Commission

to undertake relevant activities and investigations to obtain a true and accurate picture of the financial conditions, including profitability of the industry — terms of reference 1(A). In order to obtain enough relevant information to report accurately to the Government in this regard and in order to prepare a Position Paper ... the Commission needed to undertake thorough, complex and impartial investigations. (sub. DR115, p. 3)

The Commission was unable to undertake a comprehensive survey because a short inquiry provides insufficient time to design a representative survey specifically for citrus growers, trial the survey, mail it out to participants, provide time for them to respond, check the data in responses, undertake analysis and report the results. Consequently, the Commission has relied on existing information, including that provided by participants.

Surveys sponsored by the MVCMB provide some information on the financial performance of the total farm business and the citrus part of the business in the Murray Valley region.

The survey on the citrus part of the business, entitled *Cost of production* survey, is used to estimate whether the grower has earned an economic profit from growing navel and valencia oranges (table 3.6). These estimates show whether the grower has earned a profit in excess of the amount needed to cover variable costs, capital costs (interest expense, return on capital and depreciation) and an imputed value for the owner's labour. This definition of profit differs from the normal accounting definition of profit, which, for example, does not treat return on equity as a cost of production in the accounts. The survey includes only citrus specialists, defined as growers with farm income from citrus exceeding 50 per cent of their total income.

Several observations can be made about profitability based on the businesses in the *Cost of production* survey.

First, the average citrus farm in the Murray Valley made an economic loss in four out of the past six years.

Second, there is variability in profit, both over time and between businesses. Some businesses are doing well, as indicated by the average profitability of the highest quartile. Others are not (lowest quartile). This divergent performance indicates that market conditions are not the only factor affecting grower profitability. It may be that farm size is a factor. In commenting on the Murray Valley survey, the MVCMB made a number of observations.

- The top third of growers were large in scale, had a low cost of production, had high profits, were not heavily reliant on off-farm income, and were able to fund redevelopment and expansion.

- The middle third of growers consumed profits in living expenses, and were usually reliant on off-farm income for expansion or redevelopment.
- The bottom third of growers were small in scale and highly dependent upon off-farm income for meeting living expenses (MVCMB sub. 75, pp. 5–6).

Table 3.6 Profitability of the citrus part of the business in the Murray Valley, 1995-96 to 2000-01^a

| | <i>Lowest quartile</i> | <i>Mean</i> | <i>Highest quartile</i> | <i>Sample size</i> |
|-----------|------------------------|-------------|-------------------------|--------------------|
| | \$/ha | \$/ha | \$/ha | no. |
| 1995-96 | na | -2 501 | na | 27 |
| 1996-97 | na | -820 | na | 51 |
| 1997-98 | -6 062 | -1 867 | 277 | 45 |
| 1998-99 | -3 785 | 123 | 2 708 | 32 |
| 1999-2000 | -3 470 | 1 157 | 4 805 | 32 |
| 2000-01 | -6 076 | -903 | 2 653 | 31 |

^a Information obtained from the *Cost of production* survey. **na** Not available.

Source: MVCMB (sub. 75, p. 29); Rendell McGuckian (1999, 2001, 2002).

Primary Industries and Resources South Australia had a similar view about profitability and farm size. The department stated that ‘while larger firms are investing heavily and appear to be thriving, the smaller ones are struggling to make adequate returns’ (sub. 82, p. 8).

Third, as in other horticultural industries, grower profitability varies from season to season because of variation in yields. According to some participants, profits are lower in high yield years than in low yield years. As the MVCMB explained:

Regions experience high yielding years where lower citrus prices often result due to heavier supply and smaller fruit size. This when combined with higher picking and marketing costs often reduces profits, despite the higher yield.

[When] regions experience low yielding years the result is usually lighter supply, larger fruit size and higher citrus prices. This when combined with lower picking costs (per hectare) and lower marketing costs sometimes can increase profits, despite the lower yield. (sub. 75, p. 7)

However, profit might not necessarily be lower in high yield years if growers can maintain the quality of fruit they produce (for example, by thinning). Based on the Rendell McGuckian survey, the MVCMB (sub. 75, p. 7) concluded that successful growers are those that are able to maintain consistency in yield and fruit size, regardless of seasonal conditions.

According to the ACG, the mix between production of valencia and navel oranges may also be a key determinant of a particular region's grower profitability (sub. 72, p. 2).

A large degree of caution is required when interpreting the information obtained from the Murray Valley (*Cost of production*) survey. The survey suffers from a number of significant sampling and methodological problems.

First, the sample may suffer from a selection bias because growers in the Murray Valley were able to choose whether or not to be included in the survey. This means that the profitability (or other financial characteristics) of growers in the survey may be significantly different from that of growers not included in the survey, either in the Murray Valley or in other growing regions. The direction of the bias cannot be determined, although the ACG considers that the survey overstates the profitability of growers in other regions:

It is important to stress that the Murray Valley region has a significantly higher proportion of navel fruit to total fruit than is the case in the Riverina and Riverland ... For this reason the results for the Murray Valley present a considerably more favourable picture of the financial performance of growers than that which is believed to exist in the other two regions. (sub. 72, p. 8)

Second, the sample size is small (31 enterprises in 2000-01), representing approximately five per cent of citrus establishments in the Murray Valley, or around one per cent of total citrus establishments.⁴

Third, variable costs of citrus establishments have been estimated by allocating a share of total variable costs for the farm business to citrus in proportion to the citrus share of total farm income. This approach can understate or overstate the actual profitability of the citrus business.

Information is also available on the profitability of 66 citrus establishments which participated in the MIA PowerPACT program in 2000-01. The MIA Horticultural Council estimated the average price received and average costs incurred for the top 20 per cent and the average of all participants. The estimates suggest that these groups of growers received an average price above their average costs of production (excluding return on assets), and had approximately \$2365 and \$542 per hectare, respectively, to cover the return on assets. Assuming a rate of return on assets of 8 per cent (which is consistent with Rendell McGuckian (2002)), an imputed value of assets per hectare can be estimated using these returns — these are \$6770 for the average grower and \$29 560 for the top 20 per cent (table 3.7).

⁴ The MVCMB estimated that there were 585 citrus establishments in the Murray Valley in 2000.

Table 3.7 Financial performance of citrus growers applying for MIA PowerPACT program, 2000-01^a

| | <i>Unit</i> | <i>Average</i> | <i>Top 20 per cent</i> |
|--|-------------|----------------|------------------------|
| Average price | \$/t | 201 | 257 |
| Average cost | \$/t | 182 | 171 |
| Price minus cost | \$/t | 19 | 86 |
| Yield | t/ha | 28.5 | 27.5 |
| Revenue available to pay for return on assets ^b | \$/ha | 541.5 | 2 365 |
| Imputed value of assets ^c | \$/ha | 6 769 | 29 563 |

^a Price and cost information are averages from a sample of 66 citrus establishments in the MIA which applied for assistance under the MIA PowerPACT Rural Partnership Program. Establishments are ranked according to return on assets, which is calculated as the earnings before interest and tax expressed as a percentage of the total assets employed in the business. ^b The revenue available to pay for interest on debt or return on assets per hectare. ^c Calculated by dividing the revenue available to pay for the return on assets by a rate of return of 8 per cent.

Source: Riverina Citrus (attachment to sub. DR132).

Another way to look at grower profitability is to adjust the average costs for the MIA to include an allowance for the return on assets, based on those for the Murray Valley. Rendell McGuckian estimated that in 2000-01, the return on capital for the average grower was \$56 per tonne (or \$2150 per hectare) and \$42 per tonne (or \$2160 per hectare) for top quartile of establishments. Including these costs (while recognising the limitations of this information) suggests that the average participant in the MIA was unprofitable and did not earn a satisfactory return on assets employed in the business.⁵ In contrast, the top 20 per cent of participants were likely to be profitable and had an income in excess of the amount required to earn a return on the assets employed in the farm business.

An important characteristic affecting the profitability of citrus establishments is the long lead time between when a tree is planted and when a grower achieves a positive cash flow. As the MVCMB stated:

The time lag between planting and achieving fully bearing yield is approximately seven years. Production is very low for the first three years and a positive cash flow might not be achieved until after year ten (to cover development costs, land value, and operating costs).

⁵ The Commission estimates that the adjusted costs were \$238 per tonne for the group average and \$213 per tonne for the top 20 per cent of growers. These estimates are within the range of those provided by individual orange growers (\$200–250 per tonne) (Joe Pasin (sub. 5, p. 1), Frank Scott (sub. 10, p. 1), Waikmore Properties (sub. 22, pp. 3–4), Adrian Dametto (sub. 24, p. 1), Frank Scali (sub. 36, p. 1), D and K Zalunardo (sub. 46, p. 1), Michael and Julie Watts (sub. 55, p. 1) and Glen Baveresco (sub. 66, p. 1)).

If not including land value then a positive cash flow can still take eight years or even longer when accounting for the lost production from trees being removed. (sub. 75, p. 14)

NSW Agriculture and Primary Industries and Resources South Australia supplied information to the Commission on the expected price and the annual costs of growing particular varieties of citrus in New South Wales and South Australia over a 21 year investment period. This information enabled the Commission to estimate an average unit cost of production which takes into account the long lead time and the associated up-front investment (see appendix C). The price and cost information are based on consultation and experience, and NSW Agriculture stated that:

Although the budgets provide a guide to the relative profitability of the different enterprises and an indication of the management practices used, they should not be injudiciously applied to individual situations. The budgets are influenced not only by general factors such as prices, costs, etc., but also by individual characteristics of each farm. (1997, p. 3)

The data from both departments indicates that the expected price of navels and mandarins in the MIA and Sunraysia regions, and of navels and valencias in South Australia, are above the unit variable cost of growing the citrus over the lifecycle of the tree. The remaining gap is available to pay for overheads, owner's labour, depreciation and return on capital (land and equipment, excluding the costs of establishing an orchard, which are accounted for in the costs) (table 3.8).

Table 3.8 Estimated annual returns from growing citrus in New South Wales and South Australia

| | | MIA | | Sunraysia | | South Australia | |
|---|-------|--------|-----------|-----------|-----------|-----------------|-----------|
| | | Navels | Mandarins | Navels | Mandarins | Navels | Valencias |
| Expected price | \$/t | 350 | 550 | 350 | 550 | 330 | 170 |
| Estimated unit variable cost ^a | \$/t | 330 | 491 | 329 | 490 | 159 | 159 |
| Revenue available to pay for certain fixed costs ^b | \$/ha | 345 | 1 017 | 367 | 1 039 | 3 169 | 208 |

^a Calculated as the discounted weighted average cost of production over the lifecycle of the tree (20 years plus 1 year for site preparation). This is the estimated variable cost spread across the life of the investment (see appendix C). ^b Selected fixed costs not included are owner's labour, overheads, depreciation on-farm equipment and return on capital (excluding investment in trees and site works).

Source: Citrus Growers of South Australia (sub. 79, pp. 16–19); NSW Agriculture (pers. comm., 14 March 2002); Primary Industries and Resources South Australia (pers. comm., 2 April 2002).

More recent survey information on the financial performance of establishments and the incomes of households engaged in citrus growing in 2001-02 is unavailable. However, some participants predicted that the financial performance of enterprises in 2001-02 was likely to be considerably better than in 2000-01. For example, the

MVCMB stated that ‘it should be noted that 2001-02 is looking a better year for returns than 2000-01 and may reflect similar levels of profitability as 1999-2000’ (sub. 75, p. 3).

Non-citrus income

In assessing the need for additional government-funded assistance, it is important to look at the overall financial position of citrus growers, including non-citrus income. Many establishments are not solely or largely dependent on citrus, but also grow other crops (table 3.4) and earn off-farm income. Consequently, income from citrus production will not always provide a reliable indication of the total income of those growing citrus.

In response to the position paper, a number of participants disagreed with the Commission’s inclusion of non-citrus income in assessing the profitability of the citrus industry. Riverina Citrus expressed concern about:

The attempts by the Commission to include off-farm income and income from other crops in order to validate the financial viability of the industry. This information is outside the scope of this inquiry. This inquiry is to focus on the profitability of the citrus industry. As such, given that growers need to grow other crops and work extra part time jobs in order to survive, clearly demonstrates that citrus growing is not profitable and yet the Commission refuses to accept this position. (sub. DR115, p. 3)

The MVCMB expressed similar sentiments:

Off-farm income was mentioned in the position paper and I would have thought that, within the terms of reference and given that it's an inquiry into the citrus growing and processing industry, off-farm income was somewhat irrelevant. (trans., p. 205)

The rationale for the Commission’s approach in discussing off-farm income is discussed in more detail in chapter 9.

Information is available on the profitability of the total citrus and non-citrus business of a sample of growers in the Murray Valley (*BizCheck* survey) (table 3.9).

However, unlike the *Cost of production* survey, the cost of owner’s labour and interest payments on developed land are not deducted from the estimated profit or loss of the total farm business. Therefore, the profitability of the total farm business and the citrus part of the business cannot be directly compared — the former estimates are derived using an accounting definition of profit, and the latter are derived using an economic definition.

Table 3.9 Profitability of the entire citrus enterprise in the Murray Valley, 1994-95 to 1998-99^a

| | <i>Lowest quartile</i> | <i>Median</i> | <i>Highest quartile</i> | <i>Sample size</i> |
|---------|------------------------|---------------|-------------------------|--------------------|
| | \$/ha | \$/ha | \$/ha | no. |
| 1994-95 | -1 172 | 472 | 3 269 | 25 |
| 1995-96 | -228 | 1 440 | 7 272 | 47 |
| 1996-97 | -1 325 | 1 014 | 6 995 | 43 |
| 1997-98 | -2 891 | 456 | 4 951 | 45 |
| 1998-99 | -1 725 | 1 658 | 7 071 | 35 |

^a Information obtained from the *BizCheck* survey.

Source: MVCMB (sub. 75, p. 5 and 28).

The *BizCheck* survey shows that the profit of a citrus enterprise (and the income of the households it supports) is not solely dependent on the profitability of growing citrus, but also is dependent on the profitability of other crops grown. Many households also earn off-farm income, which raises the overall level of income (table 3.10). For example, when off-farm income is taken into account, the proportion of households earning below \$30 000 per year in 1998-99 declined from 34 to 20 per cent and the proportion earning above \$60 000 per year increased from 40 to 63 per cent. The survey also shows that there is variability in profit, both over time and between businesses, but less variation in profit compared with citrus only income (table 3.6).

Table 3.10 Distribution of total farm and total farm plus off-farm income per farm household, Murray Valley, 1994-95 to 1998-99^a

Per cent

| | 1994-95 | | 1995-96 | | 1996-97 | | 1997-98 | | 1998-99 | |
|----------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|--------------------|----------------------------------|
| | <i>Farm income</i> | <i>Farm plus off farm income</i> | <i>Farm income</i> | <i>Farm plus off farm income</i> | <i>Farm income</i> | <i>Farm plus off farm income</i> | <i>Farm income</i> | <i>Farm plus off farm income</i> | <i>Farm income</i> | <i>Farm plus off farm income</i> |
| Below \$30 000 | 72 | 44 | 47 | 19 | 58 | 40 | 73 | 57 | 34 | 20 |
| \$30 000 to \$60 000 | 16 | 40 | 13 | 21 | 12 | 23 | 0 | 16 | 26 | 17 |
| Above \$60 000 | 12 | 16 | 40 | 60 | 30 | 37 | 27 | 27 | 40 | 63 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

^a This table is estimated from the *BizCheck* survey and shows, for example, that 72 per cent of households earned a total farm income per family of less than \$30 000 in 1994-95. When off-farm income is included, only 44 per cent of households earned an income of less than \$30 000 in 1994-95.

Source: MVCMB (sub. 75, p. 5).

The *BizCheck* survey also indicated a downward trend in the share of citrus income in total farm income. Between 1994-95 and 1999-2000, the share of citrus income declined from 89 per cent to 50 per cent of total farm income (Rendell McGuckian 2002, p. 5).

According to Riverina Citrus, citrus growers in the Riverina are more dependent on off-farm income than growers in the Murray Valley. This is because of the soldier settler blocks, the large area of valencia plantings and historical legislative restrictions which prevented aggregation of holdings (sub. DR115, p. 9).

Notwithstanding the limitations of the Murray Valley survey data, they appear to be indicative of the citrus industry more generally. Information was obtained from the 1997 ABS agricultural census on the total number of citrus establishments, EVAO and total citrus production.⁶ The large range in EVAO for deciles representing the smallest citrus producers (less than 80 tonnes) suggests that, for those growers, citrus is a relatively small part of their income. For example, 57 per cent of citrus establishments in the sixth decile (41 to 80 tonnes) received \$78 000 or more from total agricultural activity (table 3.11). If this revenue were attributed to citrus production, it would imply a lower bound on price of \$975 per tonne — far in excess of prices received by growers.

Table 3.11 **Total number of citrus establishments by decile for production and EVAO per establishment, 1997^a**

| Decile range for production per estab. | Decile range for EVAO per establishment (\$'000) | | | | | | | | | | Total |
|--|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|
| | 0–17 | 17–33 | 33–55 | 55–78 | 78–103 | 103–137 | 137–188 | 188–261 | 261–432 | Over 432 | |
| 0–0.35 | 101 | 61 | 38 | 31 | 23 | 18 | 22 | 14 | 14 | 6 | 328 |
| 0.35–2.5 | 87 | 64 | 36 | 33 | 25 | 29 | 20 | 13 | 13 | 7 | 327 |
| 2.5–7.3 | 64 | 70 | 48 | 41 | 28 | 22 | 16 | 19 | 13 | 7 | 328 |
| 7.3–18 | 47 | 49 | 60 | 38 | 34 | 25 | 31 | 24 | 11 | 10 | 329 |
| 18–41 | 28 | 55 | 59 | 50 | 45 | 28 | 21 | 15 | 18 | 14 | 333 |
| 41–80 | 2 | 27 | 58 | 55 | 45 | 49 | 33 | 19 | 25 | 16 | 329 |
| 80–144 | | 5 | 29 | 65 | 65 | 49 | 45 | 34 | 23 | 20 | 335 |
| 144–253 | | | 2 | 17 | 59 | 73 | 60 | 56 | 46 | 19 | 332 |
| 253–462 | | | | 1 | 6 | 36 | 81 | 100 | 69 | 39 | 332 |
| Over 462 | | | | | | | 3 | 37 | 99 | 193 | 332 |
| Total | 329 | 331 | 330 | 331 | 330 | 329 | 332 | 331 | 331 | 331 | 3 305 |

^a For the definition of decile, see table 3.2, note a.

Source: Unpublished ABS 1997 agricultural census data.

⁶ Establishments were grouped into deciles based on production per establishment, and then grouped into deciles based on EVAO per establishment.

The data also suggested that less than 30 per cent of establishments are likely to generate a gross annual income in excess of \$200 000 per family, which according to the MVCMB, is required in order to generate sufficient profit to pay for ongoing redevelopment and expansion (sub. 75, p. 9).

FINDING 3.1

Most citrus growers are not solely, or even largely, dependent on income derived from their citrus production — many earn a substantial and increasing part of their income from other farming activities, and from off-farm employment.

Overall, the Commission does not consider that the citrus industry is at risk. The industry is concentrated, with the largest 10 per cent of producers accounting for around 61 per cent of total citrus production. It is likely that many of these producers have better returns from citrus (and are more likely to be financially viable) than many of the smaller producers. Nonetheless, the evidence suggests that there are some growers who have uneconomic citrus operations.

Land values

Another potential source of wealth in the long-run to households that own citrus farms arises from changes in land values. A rise in land values will lead to an increase in the equity value of the business and may increase the grower's ability to borrow. Rising land values can also lead to higher shire rates, as Riverina Citrus pointed out (trans., p. 96). The profitability indicators reported above did not take into account any capital gain (or loss) on the value of the land.

There is evidence that prices paid for citrus properties in some regions have increased in recent years.

- Land and Property Information in the New South Wales Department of Information Technology and Management has published information indicating that prices of a typical citrus property in Griffith increased at an average annual rate of 10 per cent between 1996 and 2001.
- An upward trend in land values is also reported by Rendell McGuckian (2002), who estimated an average annual rate of increase of 5 per cent between 1995-96 and 2000-01 in the Murray Valley (table 3.12).
- The Citrus Growers of South Australia considered that land values in the Riverland had not increased at the same rate as other citrus producing areas (sub. DR109, p. 4).

- During discussions with citrus growers in the Central Burnett region of Queensland, the Commission was told that demand for orchards there was strong.

Despite evidence of rising land values, some growers appear to be experiencing difficulty in selling their farms. For instance, Robert Morey (from Cobram/Barooga on the Victoria/New South Wales border) stated that:

Peter Wilson Livestock & Real Estate Pty Ltd have on our books a number of citrus orchards for sale. Unfortunately there has been very little, if any, enquiry ... (sub. 43, p. 11)

The increase in prices paid for citrus orchards may not necessarily reflect an increase in the expected profitability of citrus. It might reflect an increasing value in some alternative use. For example, according to the MVCMB, land values in the Murray Valley have been strongly influenced by the wine industry and urbanisation:

The trend in land values has been strongly influenced by high demand for land and water for the wine industry, which has grown rapidly and experienced high returns during this period [1995-96 to 1999-2000]. Also demand for rural residential purposes may have influenced this. (sub. 75, p. 13)

Table 3.12 Land values of specialist citrus farms, 1996–2001^{a, b}

| <i>Region</i> | <i>Average farm size</i> | <i>1996</i> | <i>1997</i> | <i>1998</i> | <i>1999</i> | <i>2000</i> | <i>2001</i> |
|---------------|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | ha | \$/ha | \$/ha | \$/ha | \$/ha | \$/ha | \$/ha |
| Buronga | 11.6 | 6 233 | 6 233 | 8 095 | 8 879 | 8 879 | 8 879 |
| Griffith | 26 | 11 538 | 12 692 | 15 231 | 16 731 | 18 385 | 18 385 |
| Murray Valley | 18 | 21 070 | 15 091 | 22 125 | 26 559 | 26 701 | 26 551 |

^a Murray Valley estimates are on the current value of developed land. ^b Land values in the Murray Valley are for financial years. Figures shown for 2001, for example, are actually for 2000-01.

Source: PC estimates based on LPINSW (2002); Rendell McGuckian (1999, 2001, 2002).

Investment

The major investment in the citrus industry, other than the purchase of new land, machinery and equipment, is the planting or reworking of citrus trees. There has been a significant shift in investment away from planting valencias towards planting navels, mandarins and other citrus varieties. This is reflected in the large increase in navel and mandarin non-bearing trees, and a decline in valencia non-bearing trees (figure 3.2).

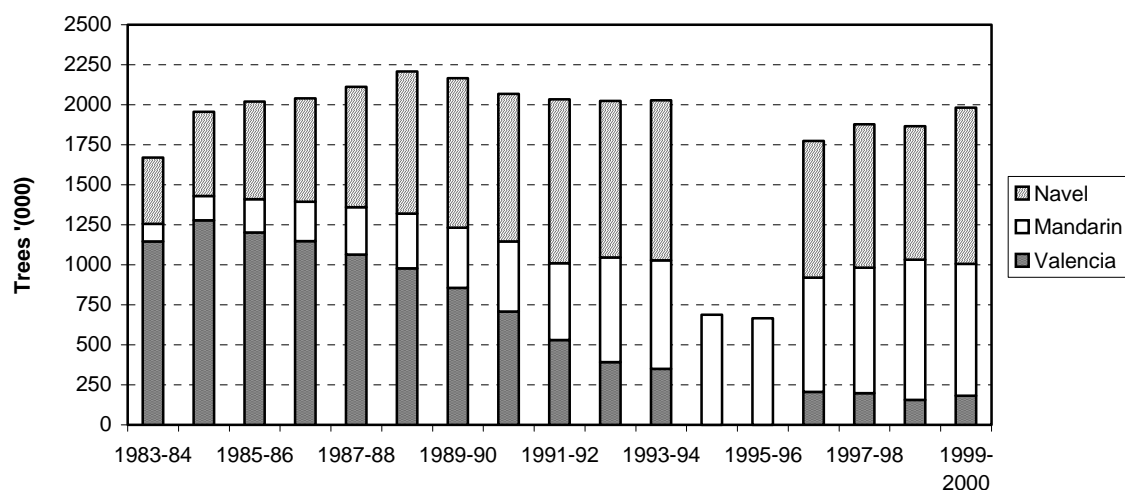
The ratio of non-bearing to total trees provides an indication of the rate of replanting for each variety and whether the replacement of old trees can sustain the level of fruit production.

According to the MVCMB:

An industry accepted figure for [economic] tree life is 25 years. To do this, 4 per cent of an orchard on average needs to be replanted [each year] or 24 per cent [of the orchard must be] under six years old. (sub. 75, p. 18)

ABS data indicate that the current replanting rate of navel trees is around the rate that maintains a steady level of bearing trees over time. In contrast, the replanting rate of valencia oranges is well below this level, indicating that in the longer term the total number of valencia trees is likely to decline and the average age of trees to rise.

Figure 3.2 Number of non-bearing trees, Australia, 1983-84 to 1999-2000^{a, b}



^a Valencia and navel data for 1990-91 to 1993-94 exclude values for Queensland. ^b Data disaggregated into orange tree varieties were not available for 1994-95 and 1995-96.

Source: ABS unpublished production data.

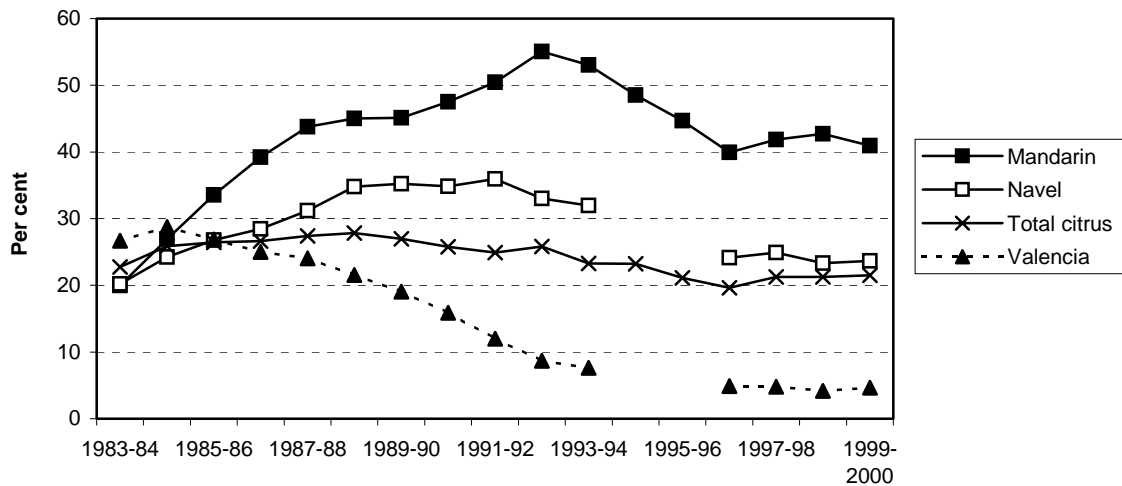
Although the replanting rate of mandarins has declined from around 55 per cent in the early 1990s, investment in mandarin trees remains high at 41 per cent (figure 3.3).

This high ratio might reflect, in part, the shorter economic lifespan of a mandarin tree — between 15 and 25 years.⁷ According to Golden Mile Orchard, the shorter

⁷ An economic tree life of between 15 and 25 years implies that around 40 per cent and 24 per cent of an orchard will be non-bearing (respectively) if the time to bearing age is six years.

lifespan of a mandarin tree may be explained by a general shift towards different varieties, high density planting and current rootstock (pers. comm., 7 March 2002).

Figure 3.3 Ratio of non-bearing to total citrus trees, 1983-84 to 1999-2000^{a, b}



^a The ratio of non-bearing to total trees indicates the level of investment in new citrus trees. A ratio greater than 24 per cent (the estimated steady state) indicates a net investment in citrus trees, with average tree age falling below 25 years. A ratio less than 24 per cent indicates a disinvestment in citrus trees, with average tree age rising above 25 years. ^b Valencia and navel data are not available between 1993–94 to 1996–97.

Source: ABS unpublished production data.

Indebtedness

The Commission received many submissions claiming that the relative indebtedness of citrus growers in some regions is high. The Murrumbidgee Valley Rural Counselling Service Inc., which provides (amongst other things) farm debt mediation work in the MIA, stated they:

... [had] seen a continuing increase of citrus and wine grape horticulturalists experiencing extreme difficulty meeting day to day living expenses and the servicing of high debt levels that many of them are carrying. (MVRCS 2001, p. 6)

A similar view was expressed by the ACG:

... a large number of growers have already left the industry, with the majority of remaining growers now on the verge of financial ruin and bankruptcy. (2001c, p.7)

However, with very little statistical information available, it is difficult to assess the extent of indebtedness within the industry. Rendell McGuckian (2001), on the basis of a small sample, estimated that indebtedness varied considerably across enterprises in the Murray Valley, with apparently high average levels of equity and

net wealth being a feature. The average equity for farm businesses in the lowest quartile of the sample, however, was lower, at 31 per cent (table 3.13).

Table 3.13 Estimated indebtedness in the Murray Valley, 1999-2000

| | Unit | Mean value for the lowest quartile | Median value | Mean value for the highest quartile |
|-----------------------------|------|------------------------------------|--------------|-------------------------------------|
| Financing costs/farm income | % | 2 | 6 | 15 |
| Farm equity/assets | % | 31 | 88 | 98 |
| Household net worth | \$ | 182 265 | 663 425 | 1 341 000 |

Source: Rendell McGuckian (2002).

3.3 Cost competitiveness of the growing sector

There is little publicly available information on the cost competitiveness of citrus growers in Australia. However, the Australian Horticultural Corporation (AHC) (AHC 1995) estimated that the average growing costs of valencia and navel oranges in Australia were between 10 and 16 per cent lower (respectively) than those in the United States, and between 29 and 80 per cent higher (respectively) than those in South Africa (table 3.14).

Table 3.14 Average growing costs for navel and valencia oranges, 1995

Cents per kilogram

| | Australia | | United States | | South Africa | |
|----------------------------|-------------|-------------|---------------|-------------|--------------|------------|
| | Navel | Valencia | Navel | Valencia | Navel | Valencia |
| Growing and pruning labour | 2.8 | 2.4 | 3.3 | 2.4 | 1.9 | 2.2 |
| Harvesting labour | 5.5 | 4.6 | 4.0 | 3.0 | 1.5 | 1.8 |
| Chemicals | 1.7 | 1.5 | 3.5 | 2.6 | 1.7 | 2.0 |
| Water | 1.6 | 1.4 | 2.0 | 1.4 | 0.3 | 0.4 |
| Equipment operating costs | 1.6 | 1.2 | 1.2 | 0.8 | 1.2 | 1.4 |
| Other direct costs | 0.0 | 0.0 | 1.9 | 2.2 | 0.8 | 0.9 |
| Total | 13.3 | 11.2 | 15.9 | 12.4 | 7.4 | 8.7 |

Source: AHC (1995, p. 40).

The main sources of the cost differences were:

- harvest-labour costs, where the unit cost of labour per kilogram was significantly higher in Australia, especially relative to South Africa;
- water costs, which were significantly lower in South Africa where growers pay only for pumping costs on the bores or canals; and

- other direct costs, which were significantly higher in the United States (due to frost protection for valencia oranges) and South Africa (due to infrastructure and security costs).

The AHC also derived the residual total and net returns to growers in Australia, South Africa and the United States (table 3.15). Based on the average Australian price of A\$1.21 per kilogram for navels and A\$1.10 per kilogram for valencias into Singapore, the AHC concluded that the net average returns to Australian growers (14 per cent) were lower than those for growers in the United States (25 per cent) and South Africa (43 per cent) (AHC 1995, p. 11).

Table 3.15 Growers' returns from navel and valencia oranges, 1995^a
Cents per kilogram

| | <i>Australia</i> | | <i>United States</i> | | <i>South Africa</i> | |
|----------------------------------|------------------|-----------------|----------------------|-----------------|---------------------|-----------------|
| | <i>Navel</i> | <i>Valencia</i> | <i>Navel</i> | <i>Valencia</i> | <i>Navel</i> | <i>Valencia</i> |
| <i>Best practice</i> | | | | | | |
| Total grower return ^b | 47.1 | 35.3 | 53.9 | 42.3 | 67.7 | 63.7 |
| Net grower return ^c | 33.8 | 24.1 | 38.1 | 29.9 | 60.3 | 55.1 |
| <i>Average practice</i> | | | | | | |
| Total grower return | 30.2 | 22.4 | 46.1 | 35.5 | 59.0 | 55.3 |
| Net grower return | 16.9 | 11.2 | 30.3 | 23.1 | 51.6 | 46.7 |
| <i>Below average practice</i> | | | | | | |
| Total grower return | 14.0 | 6.7 | 38.3 | 28.8 | 50.6 | 47.4 |
| Net grower return | 0.7 | -4.5 | 22.4 | 16.4 | 43.3 | 38.7 |

^a This analysis is based on an average Singapore wholesale price of A\$1.21 per kg for navels and A\$1.10 for valencias. ^b Total grower return refers to the amount paid to the grower by the packhouse. ^c Net grower return refers to the return to the grower after deducting direct growing and harvesting costs.

Source: AHC (1995, pp. 42–43).

There are a number of limitations with the AHC benchmarking study. First, total and net grower return in each country are residuals, calculated by deducting the respective growing, packing and transporting costs in each country from the average price Australian growers received for the navel and valencias sold in the Singapore wholesale market. This methodology overlooks the likely differences in prices received by Australian, South African and American growers for fruit sold in that market. This is likely to overstate the returns to South African growers in Singapore, as the AHC reported that the highest price of South African navels (A\$1.10) was below the average Australian price for navels (A\$1.57) on 3 July 1995 (AHC 1995, p. 88).

Second, the AHC has assumed the same price for the best practice, average practice and below-average practice growers selling into Singapore.

Third, international comparisons should compare like with like businesses. That is, amongst other things, the size of the farm and the degree of specialisation should be similar. The AHC analysis did not address such problems of comparability, but it noted that ‘Australian farms are usually relatively small in comparison with those in South Africa and the USA, and in many cases produce a varietal mix on these small holdings’ (AHC 1995, p. 40).

Fourth, it is not known how the situation has changed since 1995. The size of overseas citrus establishments relative to those in Australia might have changed significantly due to rationalisation. Also, growers in either country might have implemented various productivity improvements. Consequently, the net effect of possible rationalisation and new investment (as well as exchange rate changes) on Australian growers’ present cost competitiveness and returns is unknown.

4 Other sectors of the citrus industry

The previous chapter examined the profitability and competitiveness of citrus growing. This chapter describes other major activities in the citrus supply chain, such as packing, processing, converting, importing and exporting. It also examines the current situation and cost competitiveness of enterprises which undertake these activities.

Packing, processing and converting are integral components of the citrus industry. As noted in chapter 8, packing charges can account for between 18 to 22 per cent of the retail price of fresh oranges. Similarly, juice processing, packaging, marketing and distribution can account for 32 to 54 per cent of the retail price of fresh juice. The financial performance and cost competitiveness of these sectors can therefore have a significant effect on returns to citrus growers.

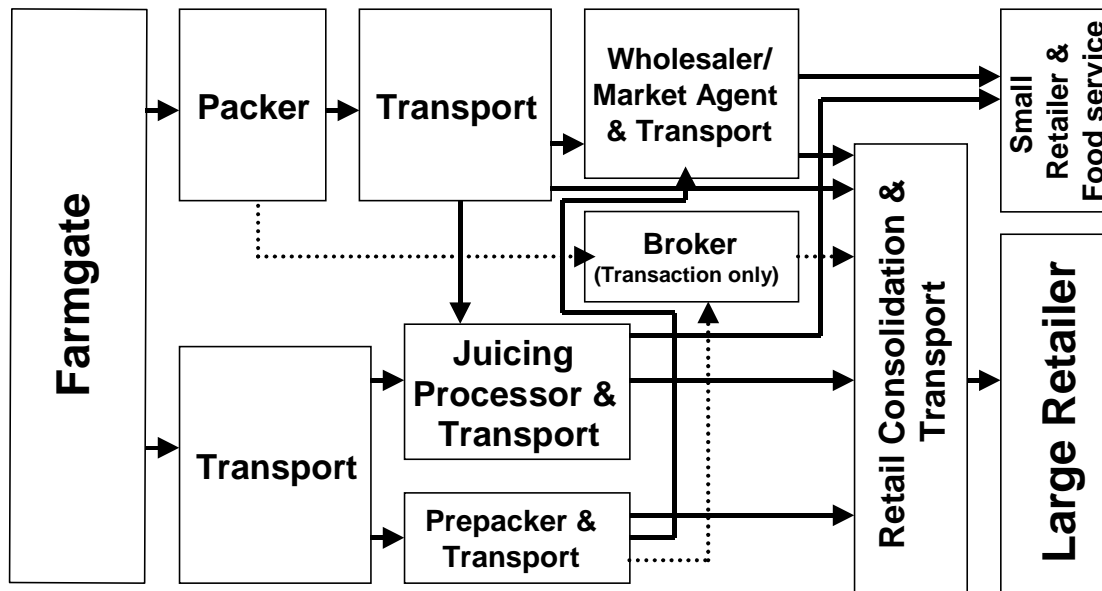
4.1 Overview of the citrus supply chain

A variety of enterprises provide value adding services at different stages in the process of getting citrus from the farm to Australian or overseas consumers. Depending on the destination (domestic or international) and the intended market (fresh fruit or juice), citrus can travel to consumers through a variety of paths (figure 4.1).

For fruit destined for domestic fresh markets, the major value adding activities may include transporting harvested fruit from the grower to a packing facility, grading and packing fruit into cartons or bags, cold storage (on or off packing premises) and transportation to wholesale markets or retail distribution centres. In some cases, brokers may act as intermediaries between packers and major buyers.

Fruit destined for processing into concentrate or fresh juice may follow different paths. Some fruit is transported directly to processors by growers. A large amount of fruit reaches processors as the over-run from packing facilities (that is, the fruit not suitable for fresh domestic or export markets). Processors may use the fruit to produce concentrate, fresh juice or other products such as oils. These processed products are then used by converters to produce bottled products such as fruit juices, drinks and cordials.

Figure 4.1 Domestic supply chain for citrus in Australia



Source: Retailworks (2001).

Fresh fruit destined for overseas markets may travel from a packing facility to a shipper’s cold store before being loaded on to ships. Depending on the destination, the packed fruit may have to undergo quarantine inspections or some form of treatment either in transit or prior to being shipped overseas. For example, oranges destined for Japan must undergo cold disinfestation treatment for a specified period. A number of export and import intermediaries (such as export and import agents and overseas wholesalers and retailers) may also be involved in the supply chain for fresh export fruit.

The following sections provide a description of each of the main elements involved in the citrus supply chain, focusing on packing, processing and converting (bottling), and export and import agents.

4.2 Citrus packing

Once citrus fruit is harvested it needs to be sorted, graded and, for fruit destined for fresh markets, packed, before being sent to buyers. These activities are referred to within the industry as packing. This section identifies the main characteristics of

citrus packing in Australia, and examines the financial performance and cost competitiveness of citrus packing.

Characteristics of citrus packing in Australia

Packing generally involves the following activities:

- cleaning, preparation and preliminary sorting (where the fruit is cleaned, where damaged, blemished and under- or over-sized fruit is removed for processing, and the remaining fruit treated to improve its presentation, destroy harmful pests or prevent the development of mould);¹
- sorting and grading (where fruit destined for fresh fruit markets is divided into those meeting export and domestic market requirements based on characteristics such as size, shape and colour);²
- labelling and packing of fresh fruit destined for domestic and international markets; and
- transport and logistics (organising the temporary storage of packed fruit in cold stores, and transporting fruit to domestic and international purchasers).

In addition to these tasks, some packers also act on behalf of growers to market fruit to domestic buyers, such as wholesale markets and retail chain-stores, and to export markets.

Some key features of citrus packing in Australia include:

- diversity in the types of enterprises supplying packing services;
- scope to automate the major packing processes;
- use of facilities on a seasonal basis;
- a variety of vertical links between growers and specialised packing operations; and
- strong emphasis on adopting quality assurance processes.

¹ The fruit that is not suitable for fresh markets (often called the ‘over-run’) may then be sold to processors for the production of products such as fresh juice or concentrate, or may be used as stock feed or dumped/destroyed.

² The fruit selected for fresh export and fresh domestic markets is usually packed in cartons weighing between 18 and 22 kilograms for oranges, and 10 to 18 kilograms for mandarins, depending on the destination. Some fruit, particularly valencia oranges, is also packed into mesh bags.

Types of enterprises supplying packing services

Currently, packing services are provided in a variety of ways. Some citrus growers choose to pack their produce in their own packing sheds using a combination of family and hired labour. However, many growers, particularly in south-eastern Australia, choose to send their produce to off-farm suppliers of packing services. Off-farm packing services may be provided by another grower with packing facilities, or by specialised packers. In turn, some specialised packers are operated by grower cooperatives while others may be independently owned and operated.

According to Queensland Fruit and Vegetable Growers (QFVG) (sub. 81, p. 3) most independent Queensland growers have their own packing facilities, and therefore grow, pack and market their own product. In comparison, there are around 2200 growers in the Riverland, Riverina and Murray Valley regions of South Australia, New South Wales and Victoria. In 2001 there were 144 packing facilities in these regions (or approximately one packer for every 15 growers) (table 4.1).

Table 4.1 Number of packers in the major orange growing regions, 1991–2001

| <i>Grower body</i> | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|
| CBSA ^a | na | n.a. | 47 | 47 | 45 | 47 | 50 | 42 | 44 | 42 | 37 |
| MVCMB ^b | 104 | 124 | 126 | 126 | 126 | 126 | 94 | 82 | 73 | 69 | 62 |
| QFVG | na | na | na | na | na | na | na | na | na | na | 28 ^c |
| RC | na | na | na | na | na | na | na | na | na | na | 45 |
| Total | na | na | na | na | na | na | na | na | na | na | 172 |

^a Includes restricted packers (a grower permitted to pack only their own fruit) and unrestricted packers. ^b The number of packers approved to receive fruit from growers located in the Murray Valley region. ^c According to QFVG (sub. 81), around 350 enterprises grow some citrus in Queensland and most of these pack their own fruit. The estimate therefore excludes small growers who pack their own fruit. **na** Not available.

Source: CBSA (pers. comm., 5 November 2001); MVCMB (pers. comm., 31 October 2001); QFVG (pers. comm., 21 December 2001; sub. 81); RC (pers. comm., 1 November 2001).

The choice of whether to pack fruit on the farm or to send fruit to a specialised packer may be influenced by various factors including: the size of the packing task; the nature of the markets which growers are targeting (such as fresh domestic or export); and grower attitudes (preferences). For instance, growers on smaller land holdings may find it more economical to pack their own fruit using family labour. Some larger farms may contract packing to a specialised enterprise because they do not possess the labour and packing equipment required to perform the task efficiently. However, some larger growers may prefer instead to invest in packing plant and equipment because they wish to pack and market their own particular brand of fruit to buyers in Australia and overseas.

A large number of enterprises currently pack citrus fruit in Australia. In 2001 there were around 170 enterprises providing packing services to the citrus industry. Based on information provided by the Citrus Board of South Australia (CBSA) and the Murray Valley Citrus Marketing Board (MVCMB), and discussions with participants, it appears that there has been a reduction in the number of registered packers over the last ten years. Between 1993 and 2001, the total number of packers in the regions covered by the CBSA and MVCMB fell by around 40 per cent. While figures are not available for the Riverina, Riverina Citrus (RC) (pers. comm., 1 November 2001) considered that the number of packers in the Riverina has fallen over the last ten years (table 4.1).

Capital intensity of packing

Packing services are provided in Australia using different combinations of plant and equipment, and labour. Some larger facilities use specialised equipment to undertake most, if not all, of the major packing tasks, including grading fruit and packing cartons. In other facilities, many of these packing tasks may be undertaken by manual labour.

There is no comprehensive information on the levels of automation of packing operations in Australia. However, evidence from an Australian Horticultural Corporation (AHC) benchmarking study provides some support for the view that levels of automation vary, and that this has contributed to variations in the costs of supplying packing services across Australia (AHC 1995). This study found that packing costs for navel oranges ranged from 20.6 cents per kilogram (for best practice) to around 31.5 cents per kilogram (below average practice) (table 4.2).

Table 4.2 Packing costs for navel oranges, 1995

A\$ per kilogram

| <i>Country</i> | <i>Best practice</i> | <i>Average practice</i> | <i>Below average practice</i> |
|----------------|----------------------|-------------------------|-------------------------------|
| Australia | 0.206 | 0.264 | 0.315 |
| USA | 0.218 ^a | 0.218 ^a | na |
| South Africa | 0.176 | 0.183 | 0.186 |

^a According to AHC (1995), A\$0.218 is the industry standard for an efficient packing facility in the United States. **na** Not available.

Source: AHC (1995, p. 39).

The AHC also found that labour costs varied between 7 cents per kilogram (or 34 per cent of total packing costs for best practice) and 15 cents per kilogram (or 48 per cent of costs based on the highest labour cost identified).

Seasonality of packing

Another characteristic of packing operations in Australia is that most handle only citrus fruit and therefore operate intensively during the picking seasons but are otherwise operating below full capacity for significant periods of the year. Consequently, many larger packing operations employ a combination of permanent and contract labour.³ In discussions with participants, it was stated that many of the seasonal packing workers are women from local communities who are employed to pack cartons of fresh fruit.

Some enterprises have improved the utilisation of their facilities by packing non-citrus fruit such as avocados and table grapes. For example, the Mildura Fruit Company packs avocados between October and December, which coincides with the end of the navel season and the beginning of the valencia season (MFC 2002a).

Vertical links

Vertical links are an important feature of many industries and may cover a broad range of agreements or understandings between enterprises at different stages in the production chain.

A large proportion of transactions involving packers occur on a 'spot' or opportunistic basis. In the citrus industry it is common for growers to sell fruit to the packer at the weighbridge, usually based on the type, quality and weight of the fruit. However, in some cases the grower may consign their fruit to a packer for sale on the grower's behalf. Whether growers sell fruit at the weighbridge or on consignment may be determined by the variety of citrus grown, its end use, and regional customary practice.

However, a variety of formal and informal links between growers, specialised packers and processors/convertors have developed. The major types of links occurring in the Australian citrus industry are contracts, joint ownership (cooperatives) and vertical integration.

Some growers, especially those located in the Riverina, have contracts to supply fruit to specialised packers and processors (although the contract is usually with processors rather than packers) (section 4.3). Some packers also have contracts to supply over-run fruit to processors.

³ For example, the Mildura Fruit Company is one of the largest packing enterprises in Australia and employs around 30 permanent staff and up to 100 casual staff during peak seasons (MFC 2002b).

Another trend is that large retail chains are beginning to deal directly with larger enterprises supplying packed fruit instead of buying fruit through wholesalers and brokers. According to Retailworks (2001, p. 7),⁴ large retail chains are bypassing wholesalers and buying product direct from growers/packers. One implication of this activity is that large retail chains are requiring growers/packers to meet their food safety procedures (see below).

Quality assurance

The gradual shift of many growers to producing fruit for fresh rather than processing markets has also coincided with increasing pressure on packing enterprises to adopt processes for ensuring food safety (generally called quality assurance within the industry). Instead of relying on end-point inspection to assess food safety, quality assurance processes seek to identify and establish processes for managing risks to food safety throughout the supply chain.

The pressure on packers to adopt quality assurance systems has come from buyers as well as those within the citrus industry. A number of large retail chains now require packers to adopt independently audited and accredited quality assurance programs. While the chains do not necessarily specify the type of food safety program that must be used, they do require the programs to be based on Hazard Analysis and Critical Control Point (HACCP) principles.⁵ Most HACCP-based food safety systems require the identification of steps in a food supply chain (to identify food safety hazards and risks), and the specification of control limits and measures to be taken when problems are identified.

The pressure on packers to adopt quality assurance processes has also come from the bodies representing citrus growers. For instance, in South Australia, packers are now required to adopt quality assurance processes as a condition of registration. The CBSA stated that:

To ensure the continued quality of the citrus industry, the Board now requires growers to have a 3rd party audited HACCP-based food safety program ... before they can be registered. (sub. 78, p. 5)

⁴ Retailworks is a retail industry consulting company. The Commission employed Retailworks to provide a report on the citrus supply chain. Its report, Retailworks (2001), is available on the Commission's website at <http://www.pc.gov.au/inquiry/citrus/index.html>.

⁵ For instance, Coles Supermarkets has prepared its own food safety program but recognises at least 6 other HACCP systems (Coles Myer 2001).

Financial performance

There is little publicly available information on the profitability of citrus packing. In discussions, a number of participants suggested that the financial performance of packing has been variable, with some packers doing well and others experiencing financial difficulties. A number of packing enterprises reported that their recent financial performance had been satisfactory. Some indicated that they had made or were planning significant new investments in packing plant and equipment. For example, the Mildura Fruit Company reported that it spent A\$2.6 million prior to the 2000 navel orange season on the installation of new fruit sorting and packing technology (MFC 2002b).

However, there have also been reports of some packers experiencing financial difficulties. For example, Waikerie Producers in South Australia, which provides packing services, recently went into receivership (Booth and Keane 2001, p. 46). Two participants also reported that they had long outstanding payments for some of the fruit that they had delivered to packers. And City Engineering, which builds and services orchard and fruit packing machinery, commented that:

... growers and packers [in the Cobram/Barooga area] don't have the funds to maintain their equipment. (sub. 11, p. 1)

Berri Limited considered that:

... there are too many citrus packers selling into the market which invariably leads to low prices and poor quality as they chase market share and capacity utilisation ... (sub. 80, p. 15)

The lack of comprehensive information means that it is not possible, at this stage, to draw any significant conclusions about financial conditions in citrus packing.

Cost competitiveness of packing operations

There is little publicly available information on the cost competitiveness of citrus packing in Australia. However, material from earlier reviews and benchmarking exercises suggests that packing costs in Australia vary considerably. While the best performing packers may have costs which are as low as those of packers in other countries, many packing facilities are likely to have higher costs.

On the basis of a qualitative comparison of local and international packing operations, the Industry Commission considered that Australian packers:

- were more labour intensive (due in part to a greater reliance on on-farm packing using family labour);

-
- were less capital intensive (as illustrated by the lower Australian uptake of equipment such as automatic packing machines); and
 - faced higher packing material costs (IC 1993, p. 118).

More recently, a benchmarking study by the AHC (1995) concluded that packing costs in Australia were on average higher than those in the United States and South Africa. The study reported packing costs for navel oranges based on an assessment of best practice, average practice and below average practice. The study found that packing costs in Australia (per kilogram) for navel oranges were between 17 per cent and 69 per cent higher than in South Africa. It also found that, on average, packing costs in Australia were around 21 per cent higher than the US industry standard for an efficient packing facility. Best practice costs in Australia were found to be about 6 per cent lower than the US industry standard (table 4.2).

International comparisons of packing costs and returns are fraught with difficulties. Differences in the scale of operations and the business mix make it difficult to draw useful comparisons. For instance, the AHC benchmarking study noted that in the United States and in some large South African facilities, plants may pack a variety of different fruit all year round. Consequently, these year-round facilities may incorporate special processes (AHC 1995, p. 39).

Also, it is not known how the situation has changed since 1995. As noted earlier, there has been some rationalisation in citrus packing in Australia and some companies have been investing in new packing and sorting technology. Since overseas packing enterprises also may have implemented various productivity improvements, the net effect of rationalisation and new investment on Australia's cost competitiveness is unknown. EJT Packers, however, pointed to improvements in the efficiency of packing in Australia:

[Packing costs] probably haven't kept pace with inflation. Growers are probably better off now with packing costs than what they were 10 years ago. Costs in the packing sector, to the best of my knowledge, and I am involved, haven't risen along with CPI. We have been able to achieve savings in packing, because of the introduction of technology, weight or density sizing, automatic packers rather than people, which is a little bit sad, because it has always been a people-intensive industry where there has been pride in what has been put into a carton by the person putting it there. Palletisation — before we used to hand-stack whole semi loads after the day's work was done. That was a little bit tiring, particular then when the transport driver had to drive 600 kilometres to the Melbourne market, or 1000 kilometres to the Sydney market. Palletisation, forklifts, mechanisation generally has helped defray a lot of costs in the packing sector. (trans., p. 260)

Economies of size may be a more important issue for packing than for citrus growing. This is because most packing processes, unlike some labour-intensive

growing tasks such as picking, can be mechanised. Consequently, the smaller scale of the packing sector in Australia compared to countries such as the United States, Brazil and South Africa could indicate that many local packers may not be able to match the unit costs of their international competitors.

As noted above, there are 144 packers in the main orange growing regions of south-eastern Australia. In 1999-2000, Australia produced around 270 kilotonnes of oranges for fresh markets in Australia and overseas. Assuming that a carton of oranges weighs about 18 kilograms on average, this equates to around 15 million cartons in total or an average of around 105 000 cartons per packer. In comparison, there were around 108 packing houses in Florida in 1999-2000, which packed an estimated 66 million equivalent cartons of oranges, or an average of around 600 000 each (over five times the average for Australia).⁶

In summary, it is difficult to assess the cost competitiveness of citrus packing. The available evidence suggests that the competitiveness of packers may vary significantly. Also, differences in the scale of operation between Australia and its major competitors such as the United States and South Africa, combined with possibly higher labour costs in Australia, may indicate that Australian packers are at a competitive disadvantage. There appears to be scope, however, to reduce the extent of that disadvantage.

4.3 Processing and converting sector

The citrus processing sector comprises a number of enterprises processing fruit into intermediate products such as fresh juice, concentrate, dried products and oils. Convertors use these intermediate products to produce finished goods such as packed juices, fruit drinks and cordial. This section briefly examines key characteristics of citrus processing and converting, and the financial performance and cost competitiveness of the sector.

Characteristics of citrus processing and converting

Key features of citrus processing and converting include:

- recent rationalisation in processing and converting; and
- expanding links between processors and citrus growers.

⁶ The estimates for the United States are based on information contained in Hodges et al. (2001). They reported that, in 1999-2000, Florida packinghouses shipped approximately 29 million boxes of oranges weighing 90 pounds each (or around 41 kilograms each).

Processing and converting enterprises

Currently, there are around 50 enterprises engaged in processing and/or converting of fresh fruit juice, reconstituted juice, cordials and other products using citrus in Australia.⁷ In recent years the citrus processing and converting sector has undergone significant consolidation (table 4.3). For instance, the number of enterprises processing fruit from growers located in the MVCMB area declined from 18 in 1996 to 8 in 2000. According to discussions with participants, the decline in the number of processing enterprises has been due to a combination of consolidation within the industry through mergers and/or takeovers, as well as some enterprises leaving the sector.

Table 4.3 Citrus processing enterprises, 1991–2001

| <i>Grower body</i> | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|
| CBSA | na | na | 9 | 9 | 11 | 10 | 8 | 7 | 7 | 7 | 8 |
| MVCMB ^a | 18 | 18 | 18 | 18 | 18 | 18 | 10 | 8 | 8 | 8 | na |
| QFVG | na | na | na | na | na | na | na | na | na | na | 3 |
| RC | na | na | na | na | na | na | na | na | na | na | 7 |

^a The number of processors approved to receive fruit from growers located in the Murray Valley region. As the reported numbers include some processing establishments located outside the MVCMB area, it is not possible to sum these figures into a total. **na** Not available.

Source: CBSA (pers. comm., 5 November 2001); MVCMB (pers. comm., 31 October 2001); QFVG (sub. 81); RC (pers. comm., 1 November 2001).

Currently, the citrus processing and converting sector is characterised by several relatively large enterprises that operate plants in several regions, and a number of smaller regional operators (box 4.1). Some enterprises (for example, Mildura Fruit Juices) focus predominantly on processing — they supply juice and concentrate to other firms which bottle and market the end product. According to the Australian Fruit Juice Association (sub. 76), there are around 8 companies that undertake processing. Hence the majority of enterprises are likely to engage in converting citrus into final products using purchased fresh juice or concentrate.

According to Berri Limited, there has been significant rationalisation in the number of processors producing concentrate:

From 10 major citrus concentrate processors, there are now only three companies in Australia which actively process concentrate in any meaningful quantity (Mildura Fruit Juices, Berri Limited and Excello Co-op) ... (sub. 80, p. 17)

⁷ This number is based on the number of companies that are currently signatories to the Code of Practice for the Fruit Juice Industry (AFJA 2001, p. 2).

Box 4.1 Major citrus processors and convertors

The citrus processing and converting sector comprises a diverse range of enterprises, some of which produce an extensive variety of products (including non-citrus beverages), whilst others specialise in citrus products.

The largest processor and convertor of citrus products is Berri Limited. The company was formed in 1961 as a cooperative owned by citrus growers in South Australia. In 1998, the cooperative was restructured, renamed Berri Limited and its headquarters relocated from Adelaide to Melbourne. Since then, Berri Limited has expanded through the acquisition of several other companies (including Patra, Sunjuice, Suncoast Sunburst and, most recently, National Foods Juice Limited). According to Evans (2001) Berri Limited is the largest firm in the Australian fruit juice sector, with a market share of around 50 per cent. It produces a variety of citrus and other beverages and employs around 1500 people across Australia.

A number of smaller companies produce fresh juice and other citrus juice products. Examples include the Original Juice Company, Mildura Fruit Juices and Crusta Fruit Juices Pty. Ltd.

Some companies (for example, Berri Limited and Original Juice) are both processors and convertors of citrus. A small number of firms are engaged primarily in the processing and sale of bulk juices to convertors (for example, Mildura Fruit Juices).

Source: Berri Limited (2001 and sub. 81); Evans (2001).

Apart from the consolidation that has been occurring, a number of enterprises in the citrus processing and converting sector have also been diversifying into producing non-citrus beverages. For instance, companies such as Berri Limited and Nippy's also market beverages such as mineral water, soft drinks and sports drinks.

Vertical links

The processing sector utilises a large proportion of Australia's valencia crop to produce fresh juice. Coinciding with the decline in valencia plantings, many processors have sought to enter into vertical arrangements with growers and packers.

The most common form of link is the long-term contract. Under these arrangements, growers contract to supply a proportion of their crop to processors and processors agree to pay a fixed price.

The use of contracts appears to be most common in the Riverina region. Riverina Citrus stated that:

We estimate that approximately 40 per cent of the Riverina's citrus growers have some form of juice contract with processors. These contracts cover only a proportion of the grower's production, not the whole orchard. Although contracts vary from processor to processor we estimate an average of \$140 per tonne is being received for contracted fruit, on the other hand, fruit delivered outside of contract has achieved as low as \$35 per tonne. (sub. 45, p. 2)

Grove Fruit Juice noted that:

Grove's position is to offer contracts only through pack-houses. Using a benchmark price of \$180 we pay 50 per cent of each load at the benchmark price and 50 per cent at spot, the principle being to remove extremes whilst still maintaining a relationship with annual harvest variances. (Current spot price is \$300-\$320 and our average return on contracted fruit for March 2002 purchases will be \$240.) In trading only through packhouses our contracts provide the opportunity for growers to maximise returns on the assumption that table quality fruit can be packed off. (sub. DR117, p. 2)

In addition to contracts, some processors have entered into joint venture agreements with growers and packers. For instance, Mid-Murray Citrus Growers Inc. stated that:

... a joint-venture fresh juicing operation [has been formed between the cooperative packer (Border Packers) and Berri Limited]. [Under this arrangement] growers guarantee total supply of their processing fruit to the joint-venture and Berri guarantees to market the total resultant processed product. (sub. 9, p. 5)

The decline in valencia plantings, combined with the strong growth in consumer demand for fresh juice, has led processors/convertors to look at ways of ensuring that sufficient supplies of valencia oranges are available to meet demand. Berri Limited stated that it:

... has recognised that its own viability in the fresh juice market is strongly linked with grower profitability and has initiated a number of programs aimed at stabilising grower profit related factors. (sub. 80, p. 5)

Measures to support growers taken by Berri Limited include:

- long-term contracts (to provide greater revenue security, it has entered into three year rolling contracts for 100 per cent of its valencia (fresh juice) requirements);
- guaranteed prices and quantities (contracts usually specify that it will take a proportion of the grower's crop and establish minimum prices in the range of \$170 to \$240 per tonne); and

-
- surplus fruit processing in high crop years (where fruit in excess of Berri Limited's immediate requirements is processed at prices above world parity concentrate price in order to reduce the ability of competitors to undercut pricing for fresh fruit and retail fresh juice pricing) (sub. 80, p. 5).

Profitability

There is very little publicly available information on financial conditions in the processing/converting sector of the citrus industry. The majority of the enterprises engaged in citrus processing or converting are privately or cooperatively owned.

According to some reports, the Australian juice industry has experienced 'aggressive price discounting' for several years which has reduced the profits of many processors/convertors (Greenwood 2001, p. 4).

The largest enterprise in the juice processing and converting sector, Berri Limited, stated that despite its leading position in the sector:

... [profit] margins are relatively low, mainly due to the high cost of raw materials, excess industry capacity and low priced consumer substitutes.

As with much of the Australian juice industry, Berri has yielded poor financial returns over recent years with accumulated net losses during the past five years alone exceeding \$17 million.

Substantial rationalisation of the company's manufacturing, procurement, selling and administrative activities has been undertaken during this period to improve the company's competitive position and future financial results.

Much of this rationalisation process has accompanied Berri's acquisition of what was previously the country's number two juice packaging business, National Foods Juice Limited. The low financial returns earned across the industry have contributed to an ongoing consolidation of industry participants.

Despite these efforts to improve operating efficiencies, profit margins remain below international benchmark levels. (sub. 80, p. 4)

Grove Fruit Juice said that the financial performance of processor and juice converter operations has been historically poor 'as evidenced by the number of businesses, large and small, exiting the industry either by take over or by closure' (sub. DR117, p. 2).

Some considered that the overall performance of the juice processing and converting sector masks differences in the performance of the fresh juice and concentrate sectors.

Greenwood (2001) considered that the freshly-squeezed market is the most profitable market for processors/convertors. Nonetheless, Grove Fruit Juice argued that discounting by Berri to maintain market leadership in fresh juice has:

... continued to suppress prices for premium quality juice to levels that cannot provide acceptable returns to growers if their produce is sold entirely for juice processing. Meanwhile [Berri's] valencia contracts are pushing growers into that corner ... Continued discount activities have relegated high quality juice products to commodity status with resultant low margins for juice operations. (sub. DR117, p. 2)

There has also been some investment in new plant and equipment in the fresh juice segment. For instance, Berri Limited said that:

Over the last 12 months Berri has invested \$3 million in upgrading its fresh juice processing facilities in South Australia and New South Wales to ensure that we have best practice quality and productivity to maintain the growth in the fresh juice sector. (sub. 80, p. 18)

Similarly, Golden Circle Limited plans to build a new \$7 million packing and juice processing plant near Griffith, which it expects to be completed by the end of 2002 (Golden Circle Limited 2002).

One area which appears to have yielded poor returns recently is the production of concentrate. For instance, Berri Limited commented that:

There has been no investment into citrus concentrate production for at least 10 years and it is even less likely in the future with the continued growth of the fresh juice sector. In fact, there has been a significant reduction in citrus concentrate production over the last decade. Citrus processors have either left the industry or their processing activities have been directed to other products (that is, apple, carrot). (sub. 80, p. 17)

In summary, although there is no comprehensive information on the recent financial performance of the citrus processing and converting sector, there is a widespread view that the financial performance of the sector has been weak overall, but that the fresh juice sector has performed better than the concentrate sector.

Competitiveness

The difficulties of storing fresh juice for prolonged periods mean that most trade in processed citrus is in the form of frozen concentrate orange juice.

There is a widespread view amongst participants that Australian processors and convertors cannot compete with other countries, particularly Brazil, in the production of frozen concentrate orange juice in terms of cost and quality (see chapter 2).

Nevertheless, a number of participants considered that Australian processors and convertors are competitive in the production of fresh fruit juice, mainly due to the prohibitive costs involved in transporting fresh juice from countries such as the United States, Brazil and South Africa, to Australia (see chapter 2).

4.4 Export agents

While a number of growers and packers export fruit and deal directly with importers, a number have chosen to use the services of specialised export agents. Export agents may provide a variety of services to growers or packers. Key tasks may (depending on the terms of sale) include:

- taking orders for fruit from overseas buyers (such as wholesalers, supermarkets and import agents);
- identifying sources of fruit meeting required specifications and in the required quantities;
- organising transport from the packing shed to the Australian port of departure or overseas destination (including arranging any required documentation and quarantine inspections);
- pursuing payment by the overseas buyer; and
- providing market feedback to growers/packers on quality, varieties demanded by overseas buyers and other issues (including through organising overseas visits by growers/packers) (Department of Transport and Regional Development 1998, pp. 20–23).

There is no publicly available information on the number of export agents handling citrus. However, from discussions with participants, the Commission understands that there are many agents currently providing export services. Most agents handle a variety of Australian produce, not just citrus. In fact, concerns have been expressed that there are too many export agents who commonly undercut one another in export markets resulting in lower returns to Australian citrus growers (see chapter 7).

5 Factors affecting the outlook for the citrus industry

The terms of reference for the inquiry require the Commission to report on the outlook for the citrus growing and processing industry.

Given the large variety of factors that may affect the future performance of the citrus industry and uncertainty about future developments in demand and supply conditions, the Commission has not sought to make predictions about the medium-term outlook for growers and others involved in the citrus industry. Instead, the Commission has attempted in this chapter to identify the main factors that could affect the outlook for citrus enterprises. These are:

- changes in consumer preferences;
- the competitiveness of Australian frozen concentrate orange juice (FCOJ) production;
- the competitiveness of Australian fresh fruit and fresh juice;
- macroeconomic developments;
- innovation;
- strategies for managing risk and uncertainty, and grower attitudes to risk; and
- the cost and availability of key inputs.

5.1 Changing consumer preferences

As noted in chapter 2, the overall consumption of fresh fruit per person in Australia has been stable in recent years. However, there is some evidence that changes in consumer preferences in Australia and overseas have occurred.

There has been a trend towards increasing consumption of fresh (that is, fresh fruit and fresh juice) rather than processed produce, in response to a variety of factors such as rising income levels and the growing health consciousness of consumers (see chapter 2). Meeting these changing consumer preferences requires growers to focus on improving fruit quality (which includes the size, colour, brix and blemishes on the fruit).

Chapter 2 noted that the change in relative prices brought about by changing consumer preferences and other factors (notably, the reduced tariff on imported FCOJ) has encouraged many Australian growers to shift towards producing higher quality oranges for domestic fresh juice and fresh fruit markets. Growers have also increased plantings of new varieties to accommodate the growing consumer preference for more convenient foods (such as easy-peel and seedless varieties of navel oranges and mandarins), and to fill the gaps in domestic and overseas availability. However, it appears that the pattern of response to these market signals has varied across the major growing regions of Australia.

The large number of young navel and mandarin trees, and continued reliance of some growers on valencia oranges, suggest that the response to changing demand patterns has yet to be completed.

According to the Australian Citrus Growers Inc. (ACG) (sub. 72, p. 4), the shift towards planting varieties suited for the fresh fruit markets is likely to increase production of oranges (navels, in particular) and mandarins by around 150 kilotonnes by 2010. This would amount to an increase of about one-quarter over the current level of production. As noted below, a number of participants considered that the supply of valencias will decrease because of the low returns for oranges processed into concentrate juice and the continual removal of valencia orange trees from orchards in New South Wales, Victoria and South Australia.

The changes in consumer preferences, combined with changes in supply chain relationships, are likely to encourage growers to become more attuned to shifts in market requirements and less focused on simply producing citrus. For instance, the increasing focus on domestic and export markets for fresh fruit may have raised grower awareness of consumer preferences, which can vary from market to market. Growers that are able to meet these requirements are able to attract premium prices, especially in export markets (see chapter 2). In addition, as noted in chapter 4, major domestic retail chains are increasingly bypassing wholesale markets and seeking direct relationships with growers and packers. The retail chains are looking to secure significant quantities of consistently high-quality fruit in order to ensure a reliable supply whilst minimising the transactions costs associated with dealing with numerous small suppliers.

A number of participants expected demand for fresh fruit and fresh juice to continue to grow in domestic and export markets, and therefore suggested that Australian growers need to continue to improve the quality of their oranges. For instance, Berri Limited considered that:

Australian growers/processors need to focus on product marketing and quality of produce. This will lead to increased consumer demand and subsequent improved

profitability for Australian [fresh] fruit and not from concentrate (NFC) products. (sub. 80, p. 23)

Similarly, the ACG stated that:

The challenge facing the industry is to meet domestic and export requirements for higher quality standards, large and consistent product lines, quality brands and traceback systems. (sub. 72, p. 23)

John Whyte (a New South Wales grower) suggested that the citrus industry needs to focus on producing seedless citrus fruit that are easy to break into segments (sub. 37, p. 2). He also argued that the packaging of these products into a ‘ready to eat’ form is essential if the industry is to remain competitive with other fruit.

Some participants considered that Australian growers need to increase production of certain preferred varieties, especially during the months when Australia’s competitors are not able to produce the desired fruit. Auscitrus considered that:

The overseas markets for mandarins are undersupplied especially in Asia. An early season export variety and a better variety to replace the late season Murcott are required. (sub. 12, p. 3)

Auscitrus also stated that Australia needs to do more to exploit seasonal export opportunities:

... a supply window exists for Australian navels arriving in overseas markets in September/October each year. This is after the last export navels depart South Africa (end July) and before Spanish navels first enter markets (early November). Competition from South American suppliers in this period is, for the moment, weak. The window applies to all markets throughout the world that Australia can access. The window may include much of November in East Asian markets... [A] similar window exists for easy peelers in September and possibly August (a gap in supply of easy peelers to Canada also occurs in April–May). (sub. 12, p. 4)

However, Auscitrus noted that Australia is unable to meet the global demand for navels during this period, given the current level of production and domestic demand. BGP International agreed with this view, arguing that:

Exports to [the United States, major Asian countries and Europe] could easily double if there was sufficient production available. (sub. 40, p. 2)

Some participants also considered that there is an opportunity for the Australian citrus industry to replace some seasonal imports of fresh citrus. BGP International stated that there is scope for domestic supply of, or increased supply of, navel oranges, lemons and red grapefruit (sub. 40, p. 2).

Some participants noted that in order to compete in fresh fruit and fresh juice markets, many growers would need to redevelop their properties by, for example,

switching to new citrus varieties or installing new technology. They considered that redeveloping citrus properties requires significant up-front outlays (for instance, to plant new trees and take up new technology) and sacrificing income from established trees that are removed to make way for young (non-bearing) trees. The Murrumbidgee Irrigation Area (MIA) PowerPACT Rural Partnership Program and MIA Council of Horticultural Associations stated that:

Growers who do decide to redevelop are limited in the percentage of farm area that they can redevelop due to the immediate reduction in cash flow. Growers then face the problem of financing debt for redevelopment as well as the cost of growing the trees until they begin to bear in five to seven years. (sub. 71, p. 10)

Some participants were concerned that many citrus enterprises are too small to generate sufficient profits to enable the owners to achieve a reasonable income and to enable them to finance property redevelopment using internally generated funds.

The Murray Valley Citrus Marketing Board (MVCMB) considered that a dedicated citrus enterprise:

... needs to be large enough to generate at least \$200 000 gross income per family in order to generate sufficient profit even at good cost control to pay for ongoing redevelopment and expansion. This is equivalent to 20 ha of orchard at \$10 000/ha gross income or 40 ha at \$5 000/ha. This suggests that 67 per cent of orchards (being less than 20 ha) are insufficient in scale to be viable in the long term and there is a need to increase average orchard size. Some businesses will have more than one orchard, but where this is not contiguous the economies of scale will be diminished. In the Murray Valley benchmarking sample growers with the highest profit consistently are above average in size and usually are 20 ha of citrus or more. (sub. 75, p. 9)

Based on results from Rendell McGuckian (2001), the MVCMB concluded that:

The impact of small size and a high proportion of valencias for many citrus businesses has been low profitability. This has meant that after meeting family needs there is inadequate funding for redevelopment. (sub. 75, p. 13)

MIA PowerPACT Rural Partnership Program and MIA Council of Horticultural Associations noted the limited use, but importance of, business planning:

Business plans are very new in this area and most farmers spend a lot of their time trying to make a dollar on the farm, not going out there wondering where the farm should be in five years' time ... there needs to be a mind shift there in farming and the way we think... (trans., p. 59)

Other participants emphasised that farm size is not the only determinant of farm performance. For example, John Whyte argued that the 'size of property is irrelevant. Variety, fruit size and appearance combined with market demand are the key factors in survival' (sub. 37, p. 3).

BGP International also stated that:

As with many industries, participants in citrus production include those who are very profitable and some enterprises that are marginal. Of course the area of production and farm size are important factors but so to is the willingness of participants to change ... (sub. 40, p. 1)

Many growers have successfully undertaken redevelopment in the past. Some growers, unable or unwilling to undertake redevelopment, have left the industry, thereby permitting existing enterprises to expand and new growers to enter. Growers who wish to undertake redevelopment have a number of options for obtaining the necessary funds, including:

- borrowing from financial institutions;
- forming business partnerships with other enterprises or individuals;
- generating funds internally from citrus or other crops;
- earning off-farm income; and
- seeking assistance under existing government programs such as the MIA PowerPACT program (see chapter 6).

Individual preferences as well as individual circumstances will influence whether growers who wish to redevelop pursue one or more of the available avenues for obtaining redevelopment capital. For instance, some growers may prefer to use internally-generated funds rather than borrowing, forming partnerships or seeking government assistance.

There do not appear to be any systemic impediments to growers obtaining finance to fund redevelopment. That said, the Commission considers that many citrus growers may be too small to provide an income for a family and at the same time to generate sufficient funds for redevelopment. Nevertheless, many of these growers will still have the options of seeking equity partners, obtaining off-farm income, concentrating on other agricultural activities or leaving the industry.

5.2 Competitive advantage of overseas producers of FCOJ

A number of participants considered that the low international price for FCOJ has been a major factor contributing to the recent performance of the Australian citrus industry. In particular, they considered that recent low prices for FCOJ had put downward pressure on the prices received by Australian growers for fruit destined for processing.

As noted in chapter 2, the international FCOJ price has been fluctuating around a declining trend. The FCOJ price fell sharply during 2000, reportedly due to a short price war between Brazilian concentrate producers. More recently, the FCOJ price has increased. The available evidence indicates that there is a link between the international FCOJ price and the domestic price of juicing oranges but that local factors, particularly domestic supply conditions, also have an influence (see chapter 2).

There is a strong view within the processing segment of the citrus industry (see chapter 2) that Australia cannot compete with countries such as Brazil and the United States (Florida) in the production of FCOJ (in terms of price and quality).

Brazilian producers of oranges for processing into juice, in particular, enjoy more suitable climatic conditions and operate on a much larger scale of production. These factors, together with lower wage costs, give those producers a lower unit cost of production. Processors also favour Brazilian and US juice concentrate for their superior flavour.

The processing and converting industry is likely to obtain its concentrate increasingly from imports. The demand for concentrate is growing. New plantings of valencias in Australia have declined. While plantings of navels have increased, they are much less suited to producing FCOJ.

FINDING 5.1

The available evidence indicates that Australia cannot compete with frozen concentrate orange juice imports from Brazil in terms of price and quality.

5.3 Australia's competitive advantage in fresh fruit and fresh juice

As noted in chapter 4, a number of participants considered that Australia has a competitive advantage in supplying fresh fruit (principally) and fresh juice to domestic and export markets. These advantages appear to arise from:

- Australia's reputation for producing a high quality, healthy product;
- Australia's growing season being out of phase with those in the northern hemisphere;
- Australia's proximity to markets in Asia and North America; and
- the high cost (both transport and quarantine) of importing fresh fruit and fresh juice into Australia.

A number of factors, such as exchange rate movements and growing demand for fresh citrus in export markets, have encouraged many Australian citrus growers to seek to exploit these advantages by focusing on producing more high quality fruit for export markets.

Quality can be affected by seasonal factors such as frost, rainfall and temperature extremes; water quality; rootstock; and on-farm cultural practices such as pruning, thinning, spraying and leaving ripe fruit on trees. Due to the joint production nature of citrus growing, the total return to a grower is determined by the proportion of fruit sold into the fresh fruit (export and domestic), fresh juice and concentrate markets. All else equal, growers who produce higher quality fruit receive higher income levels. The ACG (sub. 72, p. 32) stated that ‘in the market place larger fruit achieves good returns, while returns for small fruit are very low and can sometimes be nil’.

Higher quality fruit does not necessarily result in higher profits. There are higher input costs (such as pruning, thinning and spraying) in growing citrus for the fresh fruit markets (particularly export markets) compared with processed fruit. Growers also incur higher investment costs because of the need to replace trees regularly, as trees older than 25 years typically produce lower quality fruit. This might be an important factor for valencia growers, due to the recent low replacement levels and the large number of old trees. For example, the Citrus Board of South Australia estimated that approximately 29 per cent of valencia trees in South Australia are more than 30 years old (pers. comm., 17 October 2001).

Some participants considered that the reorientation of citrus growers towards producing high quality fruit (for fresh fruit and fresh juice) needs to continue. For example, Interaust Foods stated that:

... we believe that the future of the Australian citrus industry lies in further development of fresh fruit export markets, including planting of appropriate varieties and in the case of orange juice, further cooperative development of Fresh/NFC [not from concentrate] juice markets including exports within Asia/Pacific. This may also require the planting of more suitable varieties for our conditions and especially in the Riverina (MIA) region of New South Wales. (sub. 65, p. 6)

In commenting on the growing export orientation of the citrus industry, the South Australian Research and Development Institute (SARDI 1996a) commented that:

The larger returns to growers [on export markets] have enabled them to adopt better management practices and quality management systems. This will also enable them to in future change to new varieties and rootstocks and to use improved production techniques which will improve Australia’s competitiveness on international markets.

Berri also considered that the continued growth and rationalisation of the Australian juice industry will enable Australia to compete more effectively in world markets (sub. 80, p. 16).

While many participants agreed that opportunities are available to growers who focus on producing high quality fruit for domestic and export markets, some pointed to the emergence of future challenges. For example, the ACG said that:

The industry is anticipating increased pressures from imported fresh fruit in the future as a number of new potential suppliers are currently in the process of negotiating import protocols with Biosecurity Australia. Import risk analysis is being undertaken for citrus imports from Florida, Italy, South Africa and New Caledonia (limes). Import requests have been made for various types of citrus from Egypt, Israel, Japan, Korea and Mexico. (sub. 72, p. 18)

Growers will also face challenges in exports markets from citrus exports from other southern hemisphere countries. For example, Riversun noted that:

Prior to 1998, when we had the [United States] market to ourselves ... it was a situation of demand far exceeding supply. So up until that period we were growing — we had no competition, the prices were high, extremely high. Now that South Africa is in the market and prior — they were granted access in 1996, so we were aware that it would not be long before we would have competition in volume from South Africa. But it wasn't really until 2000 that they overcame their quarantine problems and came in with volume. (trans., p. 346)

Technological developments, especially the commercialisation of long-life packing materials, may also affect the competitive outlook for Australia's domestic and export markets (see below).

While the impact of these developments is uncertain, especially in the short term, they highlight the need for the citrus industry to work continually to exploit its advantages, to find new market opportunities and prepare to meet new competitive challenges from overseas producers in both Australian and overseas markets.

FINDING 5.2

Australian citrus growers are focusing increasingly on supplying fruit suitable for the domestic and export markets for fresh fruit and fresh juice, where they currently enjoy seasonal and transport cost advantages. Even in these markets, however, new sources of foreign competition may emerge due to increases in production by other countries, and technological developments which lower transport costs and extend the life of 'fresh' juice.

In relation to oranges used in juicing, some participants expressed a concern that the reductions in new plantings of valencias, together with continued growth in demand

for fresh juice, would lead to a shortage of fruit for fresh juice. For instance, Berri Limited considered that:

As the demand for fresh juice continues to increase growers will be encouraged to increase plantings of fresh juice fruit varieties under contract at sustainable price levels for both grower and end consumer. (sub. 80, p. 12)

The shift by many growers to producing navel oranges and mandarins has seen production of these varieties rise strongly. Given the large number of young trees (less than six years of age), it can be expected that production will expand further.

A risk facing the industry is that the growth in output of fresh fruit will outstrip the growth in demand, causing domestic prices to fall. Some participants considered that the shift to navels could lead to a situation of excess supply emerging in the future. For instance, P.J. Hillyer (a grower in New South Wales) argued that:

... there is really no shortage of navel oranges for export [and that a further shift to producing them] would cause oversupply of both local and export markets. (sub. 17, p. 1)

However, other participants considered that there is ample scope for Australia to increase its fresh fruit exports. For example, Riversun noted that in relation to exports to the United States:

There have been years where we've wanted to send 2.3 million cartons and that was the plan — we ended up shipping 1.4 million because we just couldn't supply to the quality standard that was required. I recall another year where we had agreed, or we had said to DNE 'we want to ship 2 million cartons.' We fell short and I think we shipped about 1.4 million in that particular year. So, I mean, we have not really challenged, or have the ability to challenge the market with any volume at the current prices that we have. (trans., p. 346)

BGP International also argued that:

For many years there has been a shortage of navel oranges for both the domestic and export markets. Over the next 5 years expected production from newer plantings is unlikely to satisfy demand. (sub. 40, p. 1)

Similarly, Auscitrus submitted that:

From early August to mid October, Australia is the only supplier of fresh navel oranges to world markets. During this period Australia has a supply window to all markets that have a preference for navel over valencia oranges and at current levels of domestic production, Australia remains unable to meet global navel demand during this period. (sub. 12, pp. 5–6)

In order to obtain future supplies of fruit for the fresh juice markets, processors may be forced to offer more contracts or look at other means of securing fruit (including owning orchards).

Berri noted that:

We've had navel contracts in existence — this will be the third season, which is all under contract from the packing houses. We receive maybe 5 per cent non-contracted. On valencias, previously we would have been in a position of around about 80, 85 per cent. Currently we're at 100 per cent contract. (trans., p. 472)

FINDING 5.3

The switch away from producing juicing (valencia) oranges to varieties preferred in fresh fruit markets (navel oranges and mandarins), combined with rapid continued growth in the fresh juice market, may lead to a rise in the price of oranges supplied for the juice market. It may also provide an incentive for processors to extend their use of supply contracts or to invest in production of oranges for processing.

5.4 Macroeconomic developments

The macroeconomic environment is likely to have had a significant effect on the financial performance of citrus growers. For example, the inflation rate has fallen from close to 8 per cent in 1989-90 to about 3 per cent at present (RBA 2001c). This is likely to have assisted exporters by helping to contain their costs, given that they generally have little ability to pass on cost increases.

The lower rate of inflation has been reflected in much lower interest rates. For example, the interest (cash) rate has declined from more than 17 per cent in January 1990 to 4.25 per cent in early 2002 (RBA 2001a). The reduction in real interest rates has enhanced the capacity of growers to handle debt servicing costs and can facilitate investment necessary to adapt to a changing environment.

A number of participants considered that recent changes in the Australian exchange rate, relative to the currencies of their competitors, also contributed to Australia's ability to compete in citrus markets, both domestically and internationally.

A lower Australian dollar makes Australian exports less expensive in terms of foreign currency (and consequently more desirable) in overseas markets, but also raises the cost of imported machinery and other inputs. David Tayler noted that:

Industry sources anticipate excellent export prospects in 2001-02 due to the improved quality of the crop and the low value of the Australian dollar. (sub. 67, p. 11)

John Whyte commented that:

The key factor influencing the success of Australia's exports is exchange rates. I was in California last year and realised the difficulty being experienced by growers there due to the high US dollar. In 1984 our dollar was equal to \$US1.11. I would like an assurance the present exchange rates will prevail for a long time. (sub. 37, p. 1)

The available evidence supports these views. There has been a significant increase in the real value (257 per cent) and volume (223 per cent) of Australia's fresh citrus exports between 1990-91 and 2000-01. A significant contributing factor was a depreciation of approximately 30 per cent in the real exchange rate between June 1990 and June 2001 (RBA 2001d).¹

Since 1990, the Australian dollar has depreciated against the currencies of several countries that are major importers of Australian citrus (including Hong Kong, Japan, Malaysia, New Zealand, Singapore and the United States) (table 5.1). Over the same period, there was a significant increase in the nominal value and volume of Australian fresh citrus exports to each of these countries. Of course, some of Australia's competitors in export markets may also have benefited from lower exchange rates. For example, the South African rand depreciated by 77 per cent against the US dollar between December 1990 and March 2002 (IMF 2001; 2002).

Table 5.1 Average exchange rates, 1990 and 2001^{a, b}

| | Unit | Hong Kong dollar | Indonesia rupiah | Japanese yen | Malaysian ringgit | New Zealand dollar | Singapore dollar | US dollar |
|--------|-------|------------------|------------------|--------------|-------------------|--------------------|------------------|-----------|
| 1990 | \$A1= | 6.09 | 1 430 | 113 | 2.11 | 1.31 | 1.42 | 0.78 |
| 2001 | \$A1= | 4.18 | 5 207 | 63 | 2.03 | 1.23 | 0.93 | 0.54 |
| Growth | % | -31 | 264 | -44 | -4 | -6 | -34 | -31 |

^a Each exchange rate is calculated as the average exchange rate over the year. ^b A negative value indicates a depreciation of the Australian dollar relative to that currency and vice versa.

Source: PC estimates based on RBA (2001b).

Several participants argued that the Australian market is 'import proof', in part because the current exchange rate makes imports of fresh fruit and juice prohibitively expensive (for example, Food and Beverages Importers Association (sub. 64) and Interaust Foods (sub. 65)). However, according to Berri Limited, this should not lead to complacency among growers regarding their efficiency, as this market may not remain insulated from import competition indefinitely:

The logistics of supplying NFC [not from concentrate juice] from Brazil/US into Australia has provided the Australian citrus industry with a natural barrier against imports. However, it should be noted that as major international suppliers move to bulk NFC in ships and China develops as a major citrus growing nation, Australia will need to ensure that it maximises the efficiencies of local NFC production and processing. (sub. 80, p.16)

¹ The real exchange rate is the ratio of the home exchange rate against a basket of currencies (weighted according to trade shares) adjusted for relative movements in prices and costs.

The Grove Fruit Company agreed that this market may not remain insulated from imports and that China would be a potential competitor in the fresh juice market in the future:

The notion that fresh juice is ‘import proof’ is extremely short sighted. Import NFC is currently being offered at \$1.40 per single strength litre FIS, and whilst not a commercially viable proposition at present, a return to previous Australian currency exchange rates around US70c would place it firmly in line with Australian single strength juice costs for many smaller enterprises located outside the fruit growing regions.

China is the world’s third largest producer of citrus fruit, harvesting around 7 million tonnes annually, mostly from uncultivated trees. They have the potential to dwarf Brazil in output and present a real long-term threat to international NFC and FCOJ pricing. (sub. DR117, p. 3)

5.5 Innovation

Research into new citrus varieties, new technologies (for harvesting, packing, storing and transporting fruit) and management methods (such as post-harvest fruit handling and storage) is occurring in Australia and overseas and, over time, can be expected to yield innovations that will benefit the citrus industry.

For instance, work is being undertaken to develop new value added citrus products. For example, John Whyte stated that:

The International Citrus Congress last year included a marketing session which stated that our competition is not apples, bananas etc., but prepared food, ready to eat. A machine and process has been developed in Florida to peel citrus fruit and pack it in a plastic container ready to eat. This is already being done with pineapples in Australia. (sub. 37, p. 2)

The MVCMB, noted that in relation to orchard management techniques:

... there has actually been a massive sea change in the way growers have operated in the last five years, and predominantly that has been driven by the specifications of the US market. I would think there have been more changes in growing technique in the last five years than the previous 30 or 40. It’s happening very rapidly. The research is running behind what a lot of the growers are doing. We’re actually stealing ideas from Spain, from the US and from the other countries. So there is a massive effort to increase fruit size and there have been very, very significant on-farm changes to achieve that, because on-farm we know that to be profitable we must grow fruit that meets our customers’ specifications. (trans., p. 193)

Auscitrus (sub. 12) submitted that new citrus varieties are being developed in an effort to meet consumer requirements (for example, easy-peel and seedless

varieties), improve fruit quality and to exploit seasonal gaps in the availability of fruit.

Whilst mechanical harvesting technologies, which offer the prospect of significant reductions in labour costs, have been developed, some participants considered that their practical application is currently limited. The ACG, for example, considered that the industry is unable to use mechanical harvesters to pick fruit for fresh fruit markets for fruit quality reasons (sub. 72, p. 30).

On the other hand, in their preliminary report on the Citrus Development Strategy for New South Wales (see chapter 6), McMullen, Revelant and Hutton (2001) noted that advances in mechanical harvesting have ‘opened up real opportunities for large scale processing developments where plantings are designed specifically for mechanisation’ (p. 12).

New chemicals for controlling pests and assisting with the management of activities such as pruning and harvesting are also being developed, principally overseas. These chemicals may also offer the potential for significant cost savings to overseas and domestic growers (see chapter 8).

Some growers have adopted integrated pest management techniques to manage orchard pests. This involves changing the environment so that it is more favourable to predators and parasites, releasing natural and introduced predators and parasites, and the use of chemical and biological sprays (SARDI 1996b). According to Joey Citrus (an enterprise in Mundubbera, Queensland), the immediate benefits of implementing integrated pest management were savings in chemicals and application costs, while the medium to longer-term benefits were:

... a safer working environment, a significant reduction in the toxicity of chemicals used and the resultant residue levels on the fruit and an increase in the effectiveness of available chemicals as there is less incidence of chemical resistance by pests due to a combination of less applications and lower rates of usage. (sub. 86, p. 3)

There also has been a variety of technological developments in irrigation and frost fans. Leeton Shire Council stated that:

There has been significant improvements in technology, via controlled irrigation methods, (i) to improve the efficient use of the scarce resource of water and (ii) to save funds and (iii) to improve the environment.

The use of frost fans is also another means of improving the quality of the product, ensuring a more reliable quantity and quality of fruit. (sub. 23, p. 2)

While these examples highlight some of the efforts being put into developing and implementing innovation in the Australian citrus industry, it is important to realise that citrus enterprises in other countries are also seeking to innovate. For example,

the Florida Department of Citrus has developed a citrus peeling machine for enzyme-softened fruit (FDOC 2002) and is working on developing chemicals to loosen fruit from trees to aid mechanical harvesting (Brown 2000).

Future technological developments could lead to new sources of competition in the domestic fresh fruit and fresh juice markets, where Australian growers currently enjoy seasonal and transport cost advantages. In discussion, some participants pointed to the potential development of new packaging technologies that extend the shelf-life of fresh fruit and fresh juice.

It is difficult to predict what effect future technological developments will have on the citrus industry. The continuous nature of efforts to find new ways of meeting customer requirements, improve product quality and reduce costs suggests that growers need to be attuned to potential developments and prepared to respond to the opportunities and challenges that they present. The importance of this is reinforced by the knowledge that other countries will be seeking to innovate in order to lower their costs or improve the quality of their citrus products. Continued attention to innovation in the citrus industry will help to avoid loss of opportunities and erosion of Australia's current competitive advantages.

5.6 Diversity and risk management

Citrus growers face a number of risks, many of which are also common to many other primary producers.

- Citrus prices fluctuate markedly from year to year (and even within a year) depending upon prevailing demand and supply conditions. Price fluctuations can give rise to significant variations in income.
- Citrus production is highly variable due to climate variability, pests, diseases, water availability and tree physiology (which affects fruit quality and yields).
- Input prices can rise even though citrus prices are highly variable. Many participants considered that the costs of key inputs such as labour, electricity, fuel, water and fertilisers, have risen steadily over time, and they expected that such increases would continue. While unit costs may tend to be more stable than input prices, the trend towards producing fruit for fresh fruit and juice markets may mean that unit costs of production will continue to rise.
- Risks associated with the nature of farm ownership. The citrus and other agricultural industries have a large number of family-run farms. Consequently, a range of considerations may affect management decisions, such as lifestyle choices, the degree of aversion to taking risks and succession plans (including division of the farm among family members).

One factor that distinguishes citrus from some other agricultural activities is the long lead times involved in switching varieties or in establishing new orchards. Many participants noted that it can take eight to ten years to obtain commercial quantities of fruit from new plantings, even where grafting techniques are used.

According to the ACG, the citrus industry is different from some other agricultural sectors in that it has a more limited array of devices for managing the volatility associated with citrus production and prices.

The ACG stated that:

Unlike the situation in the larger agricultural industries such as wheat, wool and cotton, citrus growers do not have access to mechanisms to manage their exposure to price risk. Growers can maintain a mix of enterprises to diversify their income, but in so doing they forego the advantages of product specialisation. There are no futures contracts or other means for locking in price outcomes or insuring against price risk. This adds to the difficulties of financial management and long term planning. (sub. 72, p. 20)

It is difficult to determine the extent to which the future development of the citrus industry is being impeded by a lack of suitable methods of managing production and price risk. While citrus enterprises may lack the risk-reducing options of some other rural industries, they nevertheless have a range of possibilities.

Participants identified a number of strategies that have been used by the citrus industry to manage these risks. The key strategies include:

- management practices;
- use of long-term contracts;
- vertical arrangements;
- diversification; and
- finding off-farm sources of income.

In addition, government programs exist to help agricultural producers (including citrus growers) cope with the risks of income fluctuations, for example, the Farm Management Deposit scheme. Tax averaging allows primary producers to even out tax payable to allow for good and bad years, to ensure that they do not pay more tax over a number of years than taxpayers on comparable but steady incomes. These provisions have been a longstanding feature of Australia's tax arrangements. The Farm Management Deposit scheme, which serves a similar purpose, is discussed in chapter 6.

Strategies to manage risk may involve costs. In relation to one strategy — diversification — MIA PowerPACT Rural Partnership Program and MIA Council of Horticultural Associations noted that:

Diversification can ... decrease the individual grower's buying power in terms of specialist inputs, decrease their selling and negotiation power when it comes to engaging in contracts for smaller amounts of fruit and involve the purchase of additional specialist equipment which increases capital costs, which are constant, no matter what the citrus industry is facing at the particular time. Those things really need to be taken into account. (trans., p. 49)

It is the role of citrus growers to weigh up the costs of the various risk management strategies with the resulting benefits, and choose the strategy or strategies that best suit their circumstances.

Management practices

Citrus growers may be able to manage risk by modifying their farm management methods. For instance, some growers have responded to rising wage rates and on-costs for permanent labour by employing contractors to perform specific tasks such as pruning.

A grower, Ian Armstrong, said that he had used a labour hire firm to harvest valencia oranges and considered that 'about the only efficiency I can see in the picking industry is to go to labour hire firms' (trans., p. 433). In relation to his use of the labour hire firm, he said:

I found it very satisfactory because [the labour hire firm] found the people. They train the pickers. They do all the administration costs. They pay the superannuation guarantee, the tax and so on, and they charge us so much per bin. (trans., p. 435)

I found [the costs of the labour hire firm] quite acceptable because they charge an on-cost, as well. The administration fee is only about 7 per cent, or something like that ... but it just takes away all the hassle and the headaches and I would rather do that and pay a few extra dollars to have it done. Ted [Angove] mentioned \$90 a tonne. I think that my costs per tonne were around about \$75. (trans., p. 436)

There may be scope for growers to use chemical, cold storage and other methods of speeding or delaying fruit ripening in order to exploit gaps in the market. The use of such risk management techniques treads a fine balance between producing high quality fruit that the market wants and exploiting market gaps. As noted by the Australian Horticultural Exporters Association Inc.:

... there is limited opportunity to delay harvesting or cold store fruit, without prejudicing shelf life and arrival quality. (sub. 74, p. 3)

Long-term contracts

Chapter 4 noted the trend towards the use of long-term contracts between growers and processors for the supply of juicing oranges. These contracts may cover terms of three to five years and generally cover a proportion of the grower's crop at an agreed price per tonne. According to Riverina Citrus, the price per tonne can depend on fruit quality and the time it is harvested.

The use of contracts is now widespread. According to Berri Limited, it has long-term contracts covering all of its valencia fresh juice requirements.

Contracts can help growers to manage pricing risk by smoothing price fluctuations. In years when fruit is abundant, growers may achieve prices above those in the spot market. But in years when juicing fruit is scarce, growers may be able to do better by selling on spot markets.

Vertical arrangements

A number of growers have sought to manage risk by vertically integrating into other activities such as packing. Some growers have moved into citrus packing, and some packers have moved into citrus growing. According to Restpath:

Around five years ago Restpath Pty Ltd, purchased fruit from around 20 growers. Today that figure is closer to 10 with some having resorted to packing their own fruit in order to value add their product ... To ensure greater supply we have recently had to purchase our own orchard as grower longevity is very much under threat. (sub. 59, p. 2)

As noted in chapter 4, some firms have entered into alliances with other enterprises to market or produce citrus products. For example, Border Packers has formed a joint-venture juicing operation with Berri Limited to take the over-run from the packing shed.

Diversification

Some growers considered that the major risk management technique available in the citrus industry is to diversify into different varieties of citrus (such as valencias, navels, lemon and mandarins) and non-citrus crops (particularly wine grapes). According to the Mid-Murray Citrus Growers Inc.:

The main measure growers can take to minimise price fluctuations is to grow a range of varieties, coupled with the major factor of growing the size and quality of fruit that the market desires. (sub. 9, p. 3)

Compared with some other agricultural sectors, such as broadacre crops and livestock, the opportunities available to citrus growers for switching from one commodity to another appear to be more limited due to the long period between planting citrus and achieving commercial harvests. On the other hand, much of the land used for citrus production may have considerable scope for other forms of agricultural production.

It appears that many citrus growers have responded to falling prices (notably for oranges for concentrate) by diversifying into non-citrus farming, particularly wine grapes and other horticultural products. For example, Joey Citrus said:

...we have utilised areas of our orchards not suited for citrus to plant mangos as an out of season crop to utilise existing equipment and generate a further cash flow and have started to trial pecans for the same reason. Other growers in the area with different soil types and temperature conditions have planted table grapes, avocados and low chill stone fruit for similar reasons. (sub. 86, p. 45)

Nick Mancini (a grower in Griffith, New South Wales) commented 'my 30 acre farm has always been a mixed orchard, comprised of oranges, peaches and grapes' (sub. 53, p. 1).

Many participants considered that the varietal mix of production has an important influence on grower performance. For example, the ACG stated that:

A key determinant of the profitability of citrus growers and growing regions is the mix between production of valencia oranges (which are mainly for juicing) and navels. Over the past decade the price of navel oranges has increased substantially relative to valencia oranges, from almost parity in 1991-92 to 52 per cent higher for navels by 1999-2000. (sub. 72, p. 2)

According to participants, there are a number of benefits from growing a range of crops. First, growers can diversify away some of the risks to income and profit associated with variation in the prices and yields on each crop. Higher returns from one crop can offset lower returns from another, resulting in lower variability in total profit. Second, the productivity of the farm might be improved by tailoring the crops to different soil types on the orchard. Growers also might benefit from better management of labour (for example, by staggering harvesting times) (MVCMB, sub. 75, p. 3).

Some growers may have attempted to manage variability in production (due to factors such as climatic variability and pests) through geographical diversification. For example, a corporate grower, Yandilla Park, manages citrus orchards located in South Australia (Renmark), as well as Victoria (Sunraysia). However, it appears that geographical diversification, which would be difficult for smaller growers to achieve, is not widely practised in the citrus industry.

Off-farm income

Many farmers have sought to manage risk by finding off-farm sources of income. There may be many motivations for obtaining off-farm income, including:

- to supplement farm income (as price reductions and cost increases have squeezed net incomes, many growers have obtained off-farm income in order to maintain living standards);
- to obtain redevelopment funds or to provide a sufficient income stream whilst redevelopment is occurring; and
- to supplement income in years when citrus prices are low.

According to the MVCMB, the results of industry benchmarking show that:

... off-farm income is an extremely important contributor to the disposable income per family, particularly in low profit years such as 1994-95 and 1997-98. (sub. 75, p. 5)

It considered that off-farm income was much more important for growers on small holdings (less than five hectares) (sub. 75, p. 10). A number of participants at the public hearings also noted the importance of off-farm income for some growers.

FINDING 5.4

Citrus growers, like other agricultural enterprises, face a number of risks, which are being managed in a variety of ways, including crop diversification, long-term supply contracts, vertical integration, off-farm sources of income and flexible management practices (such as the use of contract labour).

5.7 Cost and availability of key inputs

Like other industries, the cost and availability of inputs used in the production of citrus products can have a major effect on the financial prospects of growers and processors.

A number of participants provided information on the estimated total cost of producing citrus in Australia. Average costs per tonne or hectare are likely to vary significantly between citrus enterprises because of factors such as the techniques used for pruning, irrigation, pesticides, fertilisers, harvesting, selection of rootstock and variety of citrus, market destination (domestic or export, fresh fruit or juice), age of trees, seasonal conditions (which affect yield and quality) and farm location (which affects land values, pests, diseases and transport costs).

Riverina Citrus and Rendell McGuckian provided estimates of the various costs of growing citrus in the MIA and Murray Valley, respectively (table 5.2). Both the MIA and Murray Valley surveys reported labour as the most significant cost in growing citrus. Labour represented around 45 per cent of the total costs (excluding return on capital) in the MIA in 2000-01. Other significant costs include return on capital (land and farm equipment), overheads, depreciation, water and repairs and maintenance (plant and equipment) (Riverina Citrus attachment to sub. DR132).

Table 5.2 Average costs of production of citrus establishments in the MIA and Murray Valley, 2000-01^a

| | <i>MIA</i> | | <i>Murray Valley</i> | |
|--|--------------------------------|----------------------------|--------------------------------|----------------------------|
| | <i>Average costs per tonne</i> | <i>Proportion of costs</i> | <i>Average costs per tonne</i> | <i>Proportion of costs</i> |
| | <i>\$/t</i> | <i>%</i> | <i>\$/t</i> | <i>%</i> |
| Fertiliser | 5.1 | 2.8 | 8.4 | 3.6 |
| Chemical | 6.9 | 3.8 | 11.5 | 4.9 |
| Fuel ^b | 6.9 | 3.8 | 6.9 | 2.9 |
| Repairs and maintenance — plant and equipment ^c | 7.4 | 4.1 | 13.2 | 5.6 |
| Water ^d | 7.7 | 4.2 | 7.4 | 3.1 |
| Other costs ^e | 18.3 | 10.1 | 7.7 | 3.3 |
| Imputed owner's labour ^f | 36.4 | 20.0 | 24.7 | 10.5 |
| Hired labour ^g | 44.9 | 24.7 | 108.2 | 45.8 |
| Overheads | 25.2 | 13.9 | 19.9 | 8.4 |
| Depreciation | 22.9 | 12.6 | 28.4 | 12.0 |
| Total (excluding return on capital) | 181.7 | 100.0 | 236.3 | 100.0 |
| Return on capital ^h | | | 56.5 | |
| Total | | | 292.8 | |

^a Cost of production estimates are averages from a sample of 66 citrus farms in the MIA and 31 in the Murray Valley. ^b MIA includes oil costs. ^c Murray Valley includes repairs and maintenance for machinery and irrigation. ^d Water costs include drainage costs. ^e Other costs in the MIA include hire of crates/bins/equipment and post farm costs (levies and marketing). Other costs in the Murray Valley include power costs. ^f Based on an award wage of \$40 000 in the MIA and Murray Valley, and \$25 000 for additional family labour in the MIA. ^g Hired labour costs include contract and seasonal labour for picking and harvesting, as well as labour for field work. Total production costs do not include any interest or return on capital costs (land and farm equipment). ^h Estimated using Rendell McGuckian figures for the Murray Valley — the average of specialist citrus establishments.

Source: Riverina Citrus (attachment to sub. DR132); Rendell McGuckian (2002).

Labour

Like many other horticultural industries, the citrus industry is labour-intensive. Labour (whether seasonal, contract or permanent) is primarily employed to pick fruit and for pruning, planting, thinning and hedging.

According to Haslett Harvesting (pers. comm., 28 November 2001), there are no growers in Australia employing mechanical harvesting equipment on a permanent basis. The Mid-Murray Citrus Growers Inc. attributed this to the need to hand pick fruit carefully, and argued:

Our Australian citrus industry must aim for maximising fresh fruit marketing, both export and domestic — fruit must be carefully hand picked. Mechanical harvesting (by tree shakers or air blast following release sprays) is not an option. (sub. 9, p. 1)

Labour also is a significant expense during the off-season, especially in Queensland where labour is employed to thin mandarin trees. According to the Queensland Fruit and Vegetable Growers:

An employee on fruit thinning duties can be expected to thin 30 to 40 trees per day, and this is a significant cost for an orchard of say 10 000 trees. (sub. 81, p. 11)

Participants considered that wage rates have increased considerably. According to the Queensland Fruit and Vegetable Growers (sub. 81, p. 13), wages increased by more than 50 per cent between 1991 and 2001 — from \$7.50 to \$11.50 per hour. The Cobram-Barooga Citrus Growers Association also highlighted the rise in wage rate facing citrus enterprises (sub. 43, p. 2).

Other than the direct cost of labour, many participants identified labour on-costs (including superannuation, workers' compensation, and occupational health and safety) — and the amount of time farmers needed to devote to administration of these matters — as significant factors affecting profitability. The availability of labour was also a concern in some areas. Both of these factors are discussed in more detail in chapter 8.

Water

Although water costs, on average, are a relatively small component of total costs (around 4 per cent), it is a vital input in the production of citrus. Jack Papageorgiou (a grower) noted that growing high quality fruit requires high quality water:

In my experience of 30 years ... if you've got quality water you will grow beautiful oranges and it's only when you get an inch of rain or two, it makes an enormous change to the orange, the size and quality, and just boosts the size and the actual appearance of the tree. It picks up the colour, it changes. In the Murray if you've got high salinity, if you haven't got a different type of irrigation — particularly overheads — you get saline water and you defoliate trees. (trans., pp. 413–414)

The majority of growers rely on irrigation infrastructure to supply water, but different growing regions use different methods of irrigation (such as low sprinklers, microjets, overhead sprinklers, flood and drip systems).

There is some evidence that the price of water varies considerably across regions, and has increased substantially in recent years. ABARE (1999) estimated that average water charges varied from \$46 per megalitre in Loxton and \$30 in the MIA to \$11 per megalitre for private diverters in Victoria.² ABARE also estimated that the average price of temporarily traded water had increased from \$2.50 per megalitre in 1992-93 to between \$15–30 per megalitre in 1998-99. Murrumbidgee Irrigation indicated that citrus growers might face higher water prices in the future:

Our funds received from all citrus growers for water supply and drainage have remained less than inflation for the last 8 years. However, the price of bulk water we pay to the Department of Land and Water Conservation has risen sharply. Since 1994-95 this charge has risen from \$996 996 to \$3 617 623 in 2000-01 with smaller continuing price rises announced recently for this and subsequent years. (sub. 15, p. 1)

All State and Territory governments have also recently implemented reforms affecting the supply of irrigation water that are designed to:

- institute efficient water pricing;
- ensure adequate allocation of water to the environment; and
- clarify property rights to water and introduce or extend water trading arrangements (NCC 2001, p. vi).

The implementation of further reforms to the rural water sector may result in further rises in the cost of obtaining irrigation water. This may occur due to a combination of factors such as growing competition for scarce water resources from other uses (for example, wine grape production) and the partial allocation of existing water entitlements to the environment.

The reliability and quality of water supply is of greater concern to some growers than its price. In times of low rainfall, growers can be allocated substantially less than their entitlement. This can lead to trees dying and being removed. In addition, when the supply of water is restricted, water quality can often deteriorate due to the low volume of stream and river flow.

Water reforms may benefit citrus growers by enhancing the security of supply in some areas. The South Australian Research and Development Institute (SARDI 1996a) noted that:

Ultimately water availability may be limited, but across State sale of water rights should in future ensure that high value per kilolitre crops (like citrus and vines) replace lower value crops, like rice and cotton.

² Private diverters in the Victorian area of the Sunraysia region pay less than the channel irrigation districts because they pay no off-farm irrigation infrastructure costs.

Electricity

Electricity is used predominantly to power irrigation pumps and represents around 2 per cent of the cost of growing citrus in the Murray Valley (Rendell McGuckian 2001). However, Ian Armstrong reported that electricity costs are likely to be a more significant share of cost (around 10 per cent) for many private irrigators.

There appears to be a widely held view in the citrus industry that electricity costs have increased in recent years and will continue to do so. According to the ACG:

Electricity prices have escalated sharply in recent years as reforms in each State to improve contestability and develop a more market-based electricity supply system have been introduced. (sub. 72, p. x)

However, there is little agreement on the relative size of electricity cost increases and, consequently, their effect on growers' costs. The ACG suggested that electricity prices to growers have increased rapidly since the mid-1990s:

Between 1996 and 2001 electricity prices per unit of power used (excluding Goods and Services Tax) have increased by around 70 per cent — which is a much greater rate of increase than the increase in the general cost level. (sub. 72, p. 33)

A grower, Ian Armstrong stated:

... I've worked out [that electricity costs are] about 10 per cent of the cost ... with the change in the electricity distribution costs as of next year, we're looking at a minimum of 30 per cent increase so it will be 30 per cent on top of the costs ... so my power will then be 13 per cent of my production cost. (trans., p. 431)

In contrast, the Cobram-Barooga Citrus Growers provided information showing that, between 1998 and 2001, off-peak electricity charges were unchanged in nominal terms at 3.3 cents per kilowatt/hour. Peak rates had risen from 16.74 to 17.07 cents per kilowatt/hour (a nominal increase of around 2 per cent) (sub. 43, p. 2).

Recent information on electricity tariffs for franchise customers was obtained for Great Southern Energy (ESAA 1998, p. 47 and 2001, p. 52). This provider services southern New South Wales (including the Riverina). Great Southern Energy has a number of different Bislink rural tariffs for franchise customers, depending on the level of consumption and off-peak utilisation. A comparison between 1996-97 and 2000-01 showed that price changes varied across the tariffs, ranging from a decrease of 12 per cent to an increase of 18 per cent (in nominal terms).

The Commission notes that it is difficult to quantify the overall effect of changing electricity prices on the citrus industry. This is due in part to differences in price

trends across regional areas, tariff restructuring and differences in the circumstances and patterns of use facing individual growers.

The cost and availability of electricity in the future will depend on a number of economy-wide developments including trends in electricity demand and supply, and future investment in infrastructure (such as electricity generation).

In electricity, government reforms to facilitate the further development of competition in electricity supply and the national electricity market may also affect the cost and availability of electricity. Recent pricing reforms introduced in Australia have included the:

- introduction of retail competition;
- the increasing use of time of use tariffs; and
- removal of cross-subsidies between different customer classes (which generally has resulted in significant price reductions to businesses).

Chemicals

Chemical costs represent between 4 and 5 per cent of total costs in the MIA and Murray Valley. Chemicals are used to control insects, diseases, weeds and to extend the 'tree life' of the fruit. Many growers are using integrated pest management techniques to manage orchard pests such as wasps. The Queensland Fruit and Vegetable Growers estimated that chemical costs have increased by as much as 55 per cent between 1991 and 2001 (sub. 81, p. 13).

Chemicals also can be used instead of labour to thin citrus crops in order to improve fruit size. However, the MVCMB commented that the use of chemicals does not necessarily lead to larger fruit size and higher income levels:

I've tried chemical crop manipulation this year and previous years, and it doesn't always mean that you grow a big orange. All you do is take the dollars off your tree. You can take the fruit off, but if the weather conditions don't prevail or are conducive to growing a big orange that tree will sit there with no crop, or a light crop, and still have small oranges. It just costs you dollars to take the fruit off and you've actually lost income, because you still have to put all the business inputs into growing that tree. (trans., p. 193–194)

The ACG (sub. 72, p. 32) also stated that there were 'no chemical products available [in Australia] to thin citrus crops on a consistent basis'. The issue of chemical availability is explored in chapter 8.

5.8 Outlook

A variety of factors will influence the future performance of the citrus growing and processing industry.

Consumer preferences, in Australia and overseas, are likely to continue to change due to factors such as growth in incomes, increased awareness of healthy eating, and the desire for innovative products. While the direction of these future changes in preference is difficult to predict, they will have the potential to open up new market opportunities for growers. As a result, growers will need to be alive to new ways of meeting consumer demand.

The available evidence indicates that Australia cannot compete with FCOJ imports from Brazil in terms of price and quality. Unless there are major technological and varietal changes, which permit Australia to compete with imported FCOJ, the production of concentrate is unlikely to be a significant part of Australian citrus production in the future. Growers generally have recognised this.

The industry's future lies in supplying fruit suitable for the domestic and export markets for fresh fruit and fresh juice. In the domestic market, Australian growers currently enjoy seasonal and transport cost advantages. But these advantages cannot be taken for granted due to the possible entry of new competitors and technological advances that reduce transport barriers. Similarly, the prospect of higher returns will provide an incentive for Australia's competitors to develop ways of exploiting markets where Australia already has a strong presence. Growers will need to be alert to this potential threat and develop strategies for countering this risk.

The outlook for the cost and availability of labour, water and electricity inputs will depend on a number of factors, including:

- trends in the wider economy;
- actions taken by the industry; and
- the nature and pace of government reforms, particularly in electricity and water.

The cost of some inputs, such as labour, is likely to continue to increase, reflecting trends in the wider economy. In so far as real wages increase in line with productivity in the economy as a whole, unit labour costs may not rise. The impact of such increases on the citrus industry will depend on its productivity performance relative to that of the economy as a whole. Of course, not all prices will rise. For several reasons, the prices of some goods and services may fall — telecommunications prices are an example.

The net effect of anticipated increases in input costs on the financial performance of growers will depend, in part, upon how they manage these developments. For instance, some growers have responded to rising water costs and concerns about availability by replacing flood or overhead sprinkler systems with drip systems or by building their own water storages. Thus, while the price of irrigation water may rise, implementing water-saving technology and practices may mute the net effect on unit costs. Similarly, some growers have responded to rising labour costs by economising on farm labour (by substituting family labour for paid labour and, in some cases, by substituting contract labour for permanent labour). Some growers are looking at ways of mechanising some labour-intensive tasks (such as fruit harvesting and tree thinning). Any savings obtained through the use of more cost-effective labour arrangements, chemicals and other technology may therefore to some extent lessen the financial impact of rising wage rates.

The macroeconomic environment in which citrus growers operate is also dynamic. Currently, growers are enjoying favourable conditions due to low interest rates, low inflation in Australia, and a favourable exchange rate (vis-a-vis Australia's major export markets). While these conditions may prevail for some time, growers need to be aware of the potential for economic conditions to change. Major changes in some aspects of the macroeconomic environment, particularly the exchange rate, could have important effects on the industry and its prospects.

6 Government policies and programs

The terms of reference require that in assessing the competitive situation and outlook for the citrus growing and processing industry, the Commission is to take into account the impact and effectiveness of existing and recent Commonwealth/State policies and programs.

6.1 The Commission's approach

There are many ways in which Commonwealth and State governments can affect and, indeed, assist the citrus industry or create an environment which is conducive to improved competitiveness and which facilitates change. These range from broad, economy-wide policies and programs to those that are specific to the citrus industry. For example:

- macroeconomic policies can influence inflation, interest rates and exchange rates (which can have an important influence on the citrus industry — see chapter 5);
- general programs that provide a social safety net (the social security and labour market assistance programs) and industry assistance (for research and development (R&D) and market development);
- programs (such as Agriculture Advancing Australia) that provide assistance specifically for the agricultural sector; and
- citrus-specific programs (such as the Citrus Market Diversification Program).

There are a number of general policies and programs available to the citrus industry — some of which have been implemented to deal with the circumstances facing a range of industries and individuals. These policies and programs can be grouped into two broad categories, based on their purpose:

- to improve competitiveness and economic efficiency, including:
 - addressing market failures which constrain R&D;
 - addressing market failures which limit market development; and
 - reducing distortions resulting from tariff and tax assistance; and

-
- to facilitate adjustment to economic change, including:
 - assistance to adapt to change; and
 - assistance to exit the industry.

Evaluating the impact and effectiveness of each measure available to the citrus industry is beyond the scope of this inquiry. However, the Commission has considered the impact and effectiveness of programs designed to improve efficiency and to facilitate adjustment to economic change.

Section 6.2 discusses the rationale for government involvement in terms of improving competitiveness and economic efficiency, and facilitating adjustment to economic change. Section 6.3 sets out the key government policies and programs intended to improve competitiveness and economic efficiency and discusses their impact and effectiveness in targeting the key problems facing the citrus industry. Similarly, section 6.4 discusses policies and programs that facilitate adjustment to economic change. The way in which these have been targeted, their transparency, and their compatibility with the generally available ‘safety net’ arrangements are factors taken into consideration by the Commission in assessing whether these measures are facilitating — rather than hindering — the process of adjustment.

The question of whether further assistance measures are needed specifically for the citrus industry is discussed in chapter 9.

6.2 Rationale for government involvement

Improving competitiveness and economic efficiency

In fully competitive markets, individual entities operate on the basis of price signals to make decisions on reconciling their needs with the scarce resources available. Such markets, however, do not always exist in practice — this is usually evident in the presence of some type of market failure such as public goods (for example, defence), externalities (for example, adverse environmental effects), market power/imperfect competition (resulting in anti-competitive behaviour) and information deficiencies (Lattimore et al. 1998).

Where a market fails, there may be scope for government intervention on efficiency grounds to correct for possible adverse effects. The presence of market failure is a necessary condition for government intervention to increase efficiency, not a sufficient condition. The latter requires that the intervention generates benefits in excess of its costs. Determining whether benefits are likely to exceed costs requires

close examination of the particular market failure. If there are net benefits, governments should also consider how to design a program so that it is effective in addressing the relevant problem and produces the greatest possible net benefits.

While efforts by individual growers or the citrus industry to improve their technological know-how and their marketing skills are important, the discussion in this section focuses on the rationales for government assistance to the citrus industry in the areas of R&D support and market development.

R&D

R&D plays an important role in underpinning productivity improvements and the competitiveness of the citrus industry, and in improving living standards of those in the citrus industry and consumers of citrus products. However, the benefits which arise from R&D may not be reflected in market transactions. This is because some knowledge or technology — the product of R&D — can exhibit the characteristic of a ‘public good’, namely:

- non-rivalry — it can be made available to others at no extra cost to the developer; and
- non-excludability — the developer is unable to deny others access to it.

For example, undertaking research to develop and assess new citrus varieties requires investment, but when new varieties have been developed, it can be inexpensive to make them available to others and may be difficult to stop others from using them.

In effect, the public good nature of R&D means that the incentives for a private firm to undertake R&D activities are eroded because the benefits may be captured by other firms at little or no direct cost, given that associated expenses, once incurred, can be difficult to recoup.

In these situations, the divergence between the private and social benefit (the ‘spillover’) is not addressed by the market — this can result in under-investment in R&D. In agriculture, the spillovers from R&D can accrue to farms in the same industry, to farms in different industries, to other producers in the economy and also to the broader community (IC 1995b).

Given that spillovers may result in under-investment in R&D, governments typically develop policies and programs to encourage more research activity. Examples include the patent system, grants, tax concessions, and levies on beneficiaries of the research (such as citrus growers for citrus industry R&D). Levies on the beneficiaries of research can address the problem of spillovers within

the same industry. The broad spillovers to other farm and non-farm industries and the broader community can provide a rationale for government also providing financial support. However, any decision to implement a program needs to take into account the size of these spillovers and the costs of designing and implementing the program.

Market development

Domestic firms participating in export markets generate benefits that these firms capture, but may also generate wider benefits in the domestic economy. These wider benefits can occur through:

- reputational externalities — the marketing efforts of one firm may build up product reputations and a market presence for other Australian competitors (for example, a citrus producer may establish an international reputation and solve transport issues in a new market, enabling other citrus producers to obtain these benefits without having to incur the costs);
- knowledge transfers — domestic firms may learn from the requirements, and operating environment, of their foreign customers, particularly where these customers are industry leaders; and
- externalities from knowledge about new markets — the lessons learned from one domestic firm entering a foreign market may spill over to other firms looking to enter that market (Lattimore et al. 1998).

Governments have developed policies and programs that assist in establishing an export culture within the domestic economy to try to generate these broad economic benefits. Once again, governments also need to consider whether the broader benefits outweigh the program costs.

Governments provide assistance with market development in a number of ways, ranging from participation in negotiations on market access, to financial support for expenses incurred in developing export markets, to imposing levies on the industry to fund the market development activities (such as citrus levies for citrus marketing).

Facilitating adjustment to economic change

Structural change is a feature of all sectors of the economy. It reflects adjustments made by firms in response to continual changes in market conditions — such as changing input costs, output prices, the development of new products and new technologies, changing consumer tastes and social attitudes — and changes in

government policies. Structural change is essential if the community is to capitalise fully on its resource base and attain higher living standards.

Adjustment is continuous. It is usual for some industries to grow faster than others. In most industries, some firms are expanding while others are contracting. There also may be simultaneous entry and exit of firms in the industry. Most adjustment in the Australian citrus industry, as in other industries, is autonomous — that is, it is a response in the industry to changes in its environment, independent of government assistance.¹ The citrus industry is no exception. For example, activities that citrus growers are undertaking to improve their competitiveness are noted in chapter 3, and examples of changes that have opened new opportunities and new markets are outlined in chapter 5. BGP International noted that there are both profitable and marginal enterprises in citrus production (sub. 40, p. 1).

There are a variety of sources of change. Two key sources are market-related influences and government-related influences. The process of change arising from these influences can give rise to adjustment pressures within the economy. The World Trade Organization (1997, p. 4, quoted in PC 2001d, p. 6) has observed that:

Adjustment is at the core of a market system, and adjustment is not without cost. While economic policies may aim to improve the conditions for investment and growth — through infrastructural improvement, tax and tariff reform and prudent macroeconomic management — they cannot reasonably guarantee prosperity without pain.

In the context of agriculture, an issue that has been raised is that the rate of adjustment may be too slow and impose greater transitional costs. For example, Musgrave (1990, p. 249) noted that among the costs of adjustment, there were costs ‘... springing from inefficient resource use due to lags in the adjustment process.’

In a discussion of the role of government in farm adjustment, Harris (1970, quoted in Edwards and Watson 1978, p. 224), noted that slow rates of adjustment and the concentration of unprofitable producers in farming may occur because of the possibility of subsistence farming with farm-produced food; postponed maintenance or living off depreciation; attachment to farming as a way of life; potential capital gains from increases in land prices; and immobility caused by lack of knowledge of, or training for, other job opportunities.

Harris (1970) noted that various characteristics of agriculture ‘would mean an unduly slow rate of adjustment, with resources (especially labour) in agriculture

¹ Edwards and Watson (1978, p. 225) noted that rural adjustment occurring without the aid of reconstruction assistance is much greater than that helped by it. Similarly, Musgrave (1990, p. 25) noted that the ‘Rural Reconstruction Scheme and the Rural Adjustment Scheme in its early years were responsible for only a small number of net exits from the industry and that most adjustment was autonomous’.

earning less than similar resources in other sectors of the economy’ (Edwards and Watson 1978, p. 224). Nonetheless, Edwards and Watson noted that these constraints on occupational choice are not unique to farming. Further, the immobility problems may have an analogy for other workers in the economy in the areas of superannuation and long-service leave provisions.

Given the broad range of factors which can affect adjustment within the agriculture sector, government support in recent years has seen ‘increasing emphasis ... placed on encouraging farmers to become more self reliant and to adopt their own risk management strategies’ (IC 1996a, p. 17).

In order to facilitate adjustment processes, and ease transitional pressures, governments may provide adjustment assistance. Universally available measures are provided through the social security and tax systems, and there are other generally available measures such as job search, placement and training. They have a number of advantages, including that they:

- treat individuals in similar circumstances equally;
- target assistance to those in genuine need whatever the cause;
- address the net effects of varying influences; and
- support individuals and families rather than a particular industry or activity (PC 2001d).

In acknowledging the role for government in providing a suitable safety net for farm families (as for other Australians), the 1997 review of the Rural Adjustment Scheme noted that governments should not attempt to address farm welfare issues through instruments to assist businesses. To do so confuses the objective of the intervention, does not necessarily effectively target the welfare problem and can distort market signals to the farm business receiving assistance, with possible adverse effects on the efficiency of the sector (McColl, Donald and Shearer 1997, p. 46). The review concluded that the appropriate support is through the welfare system where eligibility is uniform regardless of the occupation of the recipient.

However, universally available measures are not designed to handle all contingencies and it may be the case that additional measures — such as specific adjustment assistance or direct compensation — are warranted to help those affected by change.

The Commission considers that the in-principle case for additional assistance on the grounds of equity and fairness is likely to be strongest where changes in the

economic environment — be they policy-related, market-related or a combination of these influences:

- impose a clear and sizeable burden on a specific group in the community (particularly if the affected group is relatively disadvantaged);
- deliver benefits mainly to relatively advantaged groups in the community; and/or
- are largely unanticipated (that is, they occur with limited notice) and involve material changes to a well defined and defensible ‘property right’ (PC 2001d, pp. 62–65).

Where governments decide that specific adjustment assistance is warranted to address any large, regionally concentrated costs, the Commission considers that such assistance should:

- facilitate, rather than hinder the necessary change;²
- be targeted to those groups where adjustment pressures or needs are most acutely felt;
- be transparent, simple to administer and of limited duration; and
- be compatible with general ‘safety net’ arrangements (PC 1999, p. 395).

An important issue in considering the case for adjustment assistance when farmers remain in farming even with poor returns is whether this is due to a market failure (which government may have a role in addressing) or is the result decisions made by well-informed people in the absence of market failure. For example, farmers may receive a low cash income but at the same time obtain capital gains through increases in land prices, or place a high implicit value on their lifestyle and accept lower monetary returns. McColl, Donald and Shearer (1997, p. 85) concluded that where these are informed choices made by individuals there should be no expectation that the community will underwrite this choice beyond the safety net available through social security.

It is also important to be clear that the role of government is not to try to create economic conditions that would enable every farm business to provide an adequate income for every farm-family household (Mauldon and Schapper 1974, p. 170). Within the broad economic tasks of government, farm and other business enterprises are normally left to themselves. Enterprises invest with regard to perceived risks and possible returns. They can never be certain that investments will be successful. The existence of low incomes does not automatically suggest that

² The South Australian Government supported this issue, noting that in the context of the Australian citrus industry, it ‘would not support measures which would impede the citrus industry’s adjustment to a more competitive global environment’ (sub. 82, p. 9).

there is an adjustment problem. Most industries would have a number of firms whose owners have low incomes through miscalculation, bad luck or risk taking.

In their mid-term review of the Rural Adjustment Scheme, McColl, Donald and Shearer (1997) identified several rationales for government assistance to agriculture. These included:

- deficiencies in the ability of farmers to obtain information and management skills that are fundamental for maintaining viable farm businesses. Key impediments that prevent farmers from gaining access to education and training to improve their management skills are attitudes to skills development and costs of training. The authors considered that government intervention to address these impediments was warranted on efficiency grounds;
- the unwillingness of farmers to leave agriculture due to:
 - lack of information about the financial position of the farm business;
 - lack of information about alternative ways of using the farm asset to generate farm income;
 - lack of information about alternative job opportunities and the particular skills a farmer can bring to them; and
 - concern about breaking established links with farming as a lifestyle and with the local rural community; and
- the variability in the returns to farming activity (arising from factors such as climate and changes in government policies), which gives rise to the need for a welfare safety net to be provided by the government — but appropriate intervention is through the welfare system.

In the past, the unavailability of capital was frequently identified as a major impediment to agricultural adjustment. However, following considerable deregulation of Australian capital markets during the 1980s, there is little evidence that farmers as a group have difficulty in gaining access to finance. The fact that some farmers may not be able to attract the finance they need is more likely to be an indication of their lack of financial viability rather than a market failure warranting government support (IC 1996a, p. xi).

It is important to distinguish between persistent and short-term income problems. A farmer who receives poor returns in a bad year may do well in a good year. Short-term fluctuations are a normal part of Australia's risky, volatile agriculture industries and periods of low (and high) income are to be expected. Movements in cash incomes in particular years can be a misleading indicator of farm financial viability (Musgrave 1990).

6.3 Impact and effectiveness of programs to improve competitiveness and economic efficiency

This section and section 6.4 set out the key government policies and programs available to the citrus industry, and discuss their impact and effectiveness in targeting the main problems facing this industry. The details of each program are described only briefly here. Appendix D provides more detail on government programs that provide support to the citrus industry.

R&D

Governments (Commonwealth and State) support R&D in the citrus industry in two ways. First, they provide a legislative framework that requires all citrus growers to contribute to research. Second, governments contribute financially to research on an agreed basis.

Horticulture Australia Limited (HAL) is an industry-owned company responsible for provision of R&D (and marketing services) to Australian horticultural industries. HAL's two main sources of R&D funding are industry levies on horticultural products, and matching funding from the Commonwealth Government (up to a prescribed limit of 0.5 per cent of the industry's gross value of production). For citrus, the industry R&D levy is \$2 per tonne imposed on all citrus products. Levy payers determine HAL's research priorities. In conducting R&D, HAL frequently collaborates with other R&D bodies and industry organisations such as Auscitrus. HAL spent \$2.1 million on citrus industry R&D in 2000-01 — with contributions from the industry levy (\$0.83 million), voluntary contributions (\$0.14 million), matching Commonwealth funding (\$0.96 million) and Commonwealth funding via the Citrus Market Diversification Program (\$0.17 million) (see appendix D, table D.1).

The general functions of the four regional citrus boards include undertaking, assisting, or encouraging R&D activities aimed at improving the methods for producing, handling, marketing and processing fruit.³ These boards are also funded from levies imposed on citrus sales.

There are also a number of State Government bodies that fund and undertake citrus industry R&D, including the South Australian Research and Development Institute,

³ Murray Valley Citrus Marketing Board, Citrus Board of South Australia, Murrumbidgee Irrigation Area Citrus Fruit Promotion Marketing Committee, trading as Riverina Citrus, and Queensland Fruit and Vegetable Growers.

New South Wales Agriculture and the Victorian Department of Natural Resources and Energy.

The Commonwealth Government also provides support through the R&D tax concession. Participants in the citrus industry can claim the tax concession (currently at 125 per cent of eligible expenditure) if they meet the criteria, which include: being a company; spending more than \$20 000 on eligible R&D activities; and demonstrating that they control the activities, bear financial risk and would own the results.

A National Competition Policy review of the *Murray Valley Citrus Marketing Act 1989* of Victoria and New South Wales was completed in July 1999. The review concluded that, given the potentially high spillover benefits that might accrue to all growers from some forms of region-specific R&D, there was a sound principle for the Board supporting such efforts through a compulsory levy. The report noted that:

The main difficulty is in determining which projects provide a good benefit to cost return to the industry and which projects provide benefits primarily to individuals. This will vary by project and season, which raises the question of how much should the levy be in any one year. A mechanism for industry consultation and collective allocation is required as suggested earlier ... For those R&D projects which benefit the industry as a whole, and are likely to be cost effective, there is a case for funding these through a compulsory levy. (CIE 1999, p. xvi)

Market development

Market development includes marketing, providing information on markets and market access. As in the case of R&D, government is involved in two ways, through public organisation (allowing an industry levy to be collected) and the direct provision of funds.

Marketing

HAL also undertakes marketing activities, funded by an industry levy of \$0.75 per tonne on oranges. HAL's marketing for the Australian citrus industry is focused on international markets. Key areas of involvement include evaluating the potential of new markets, improving market access and consumer promotional campaigns. In recent years, promotional activities for oranges have been undertaken in a number of countries through the 'Australia fresh' program.

The Commonwealth Government provides funding under the Export Market Development Grants scheme for export marketing and promotion expenses (see discussion later).

The four regional citrus boards also have a number of marketing functions, including:

- the promotion and orderly marketing of citrus fruit and citrus products (in both domestic and export markets);
- developing and maintaining minimum quality standards for citrus fruit and citrus products;
- collecting information relating to the production and marketing of citrus fruit and citrus products, including current wholesale prices and trends in production and marketing; and
- promoting the sale and consumption of citrus fruit and citrus products.

According to the CIE (1999), the promotion component of regional citrus board levies ranges from \$1–2 per tonne.

John Whyte was critical of the industry's marketing efforts:

Many consumers do not know the difference between a navel and valencia orange or different mandarin varieties. I am impressed with the labelling of apples by variety and feel we should do the same. (sub. 37, p. 2)

Interaust Foods argued that growers should work with juice bottlers and converters to develop the fresh juice market. Its submission pointed out that citrus growers in Florida pay \$US0.17 per box for advertising and promotion (sub. 65, p. 3), (which translates approximately to \$A8 per tonne).

The Australian Citrus Growers Inc. (ACG) suggested that there is a need for government funding for a domestic marketing campaign for valencias (sub. 72, p. 41).

The Commission recognises that marketing and promotion is important to the citrus industry given its increasing focus and dependence on markets for fresh fruit and fresh juice. However, the Commission also considers that most of the benefits from domestic marketing and promotion of citrus accrue to the citrus industry.

The ACG is a key participant in determining the size of the industry levy for marketing. If growers considered that there were additional net benefits which could flow from an increased level of marketing activity (whether for domestic or export markets), then, under current arrangements, the ACG could seek to increase this levy.

Market access

There are a number of ways in which governments assist citrus producers to develop new export markets. These range from providing financial assistance to small and medium-sized exporters through to active participation in international negotiations for improving access to foreign markets for Australian exports.

In negotiations on trade and trade barriers, Australia is represented by the Department of Foreign Affairs and Trade, and Biosecurity Australia. Biosecurity Australia is ‘responsible, inter alia, for the technical market access relationships that relate to quarantine requirements for exports of Australian plant and plant products’ (Biosecurity Australia, sub. DR94, p.1). The Department of Foreign Affairs and Trade is responsible for negotiating tariff and import quota issues. In recent years these organisations have either secured or improved access for the citrus industry to a considerable number of Asian markets such as Japan and South Korea. It is important for the citrus industry that the progress in removing overseas trade barriers continues. Chapter 7 discusses potential impediments in quarantine arrangements.

Export control powers

Export control powers can be used to place conditions on exporting arrangements for certain citrus products into certain export markets. These arrangements are intended to enhance the industry’s export performance.

Under the *Horticulture Marketing and Research and Development Services Act 2000*, a specified horticultural product, or market, can be declared to be a regulated product, or market in respect of that product. It is an offence for a person to export a declared product to the market unless that person has a licence and complies with the licence conditions. Under current arrangements, HAL administers the licensing scheme.⁴

For the citrus industry, export control powers are currently applied to four export markets — Taiwan, Thailand, South Korea and the United States (see appendix D, table D.2). Chapter 7 discusses export control powers.

⁴ Export control powers were previously administered by the Australian Horticultural Corporation under Part V of the *Australian Horticultural Corporation Act 1987*.

Export assistance programs

The Government has a range of general export assistance programs that the citrus industry has used, including the Export Market Development Grants scheme, Export Access, Tradestart and the Export Finance and Insurance Corporation (EFIC).

The *Export Market Development Grants* scheme provides a taxable grant for up to 50 per cent of the marketing and promotion expenses incurred in export markets. Eligible activities include overseas representation, marketing visits, the provision of free samples, attendance at trade fairs, the employment of a consultant for market research and marketing, and the cost of inward travel by an overseas buyer.

Funding for the Export Market Development Grants scheme is capped at \$150 million a year. In 2000-01, eleven part-citrus exporters (that is, recipients who have a component of export earnings derived from citrus) received \$457 400 assistance in total under the program, and two citrus exporters (that is, recipients whose export earnings derived entirely from citrus) received \$25 800 assistance in total (see appendix D, table D.3).

Export Access provides training and practical assistance for the development of export markets to small and medium-sized businesses. Participants receive assistance in identifying export opportunities, preparing for visits to overseas markets and evaluating results from those visits.

Tradestart is designed to improve access to, and awareness of, the export assistance services of Austrade for small to medium businesses in regional and rural Australia.

EFIC is a Commonwealth statutory authority which provides credit and finance services to exporters. EFIC is designed to address a market failure in the form of a lack of developed markets for export credit insurance, finance and guarantee services. EFIC's role has been to operate within the 'market gap' of the export credit and finance industry, traditionally regarded as provision of those services not offered by the private sector. This includes credit insurance for major commodity exports (such as wheat) to difficult markets.

The Department of Foreign Affairs and Trade completed a review of EFIC in 2000 (DFAT 2001). The review noted the growth in private market capacity and the internationalisation of the industry for short-term export credit insurance, and recommended that the Government should eventually look to withdraw from the clearly commercial elements of EFIC's short-term export credit insurance. The review concluded that EFIC's medium-term export finance business continues to

operate primarily in a market gap, and recommended that the Government should continue its involvement in this area.

Personal communication from EFIC (1 November 2001) indicates that in recent years — particularly around the time of the Asian financial crisis — a number of significant claims have been paid to participants in the fruit and vegetable industry following non-payment, mainly by buyers located in Asia.

TriState Fruit Fly Strategy

Access to a large number of foreign markets is dependent on the exporting area being free from fruit flies, in particular the Queensland Fruit Fly and the Mediterranean Fruit Fly. The TriState Fruit Fly Strategy was a coordinated effort to eliminate fruit fly outbreaks in the major irrigated horticultural areas of south-eastern Australia to facilitate exports and interstate marketing of fruit.

The establishment of the strategy was endorsed by the Standing Committee on Agriculture and Resource Management in October 1994. Funding was provided through a Memorandum of Understanding signed in 1996 by the Commonwealth, the Governments of Victoria, New South Wales and South Australia, and various citrus industry bodies.

The primary objective of the strategy was to establish a fruit fly exclusion zone. It also aimed to develop sterile insect control methods, control and eradicate the Queensland fruit fly in and around the fruit fly exclusion zone and implement a community awareness program. The initial funding — which extended until June 2000 — was \$2.805 million. The operational costs of the strategy were considerably higher, however, as a number of activities which were fundamental to the operation of the strategy were not part of the formal Memorandum of Understanding.

A cost-benefit analysis of the TriState Fruit Fly Strategy was completed in 2001. This study found that the control and eradication efforts undertaken to date as part of the strategy have been successful. Apart from an outbreak in the Riverina area in 1999-2000, the fruit fly exclusion zone was maintained during the strategy. The study identified a number of benefits from the strategy, including farm savings due to the absence of fruit fly (and therefore the absence of control costs), and improved domestic and international market access. The study concluded the strategy generated a net public benefit. The study also made a number of recommendations on a system of contributions to meeting the cost of the strategy (PricewaterhouseCoopers 2001).

Tariff and tax assistance

Historically, the Australian citrus industry received high levels of assistance via tariffs and various tax exemptions and concessions (see appendix D, figure D.1).

Throughout the 1980s, reliance on these policy instruments was reduced as the Government sought to encourage adjustment within the industry and Australia committed itself to a program of trade liberalisation reforms which were recognised under the subsequent World Trade Organization's Uruguay Round Agricultural Agreement.

Tariff assistance

The structure of the tariff arrangements relating to imports of frozen concentrate orange juice varied throughout the 1970s and 1980s.

In 1977 imports of frozen concentrate orange juice were subject to an ad valorem tariff of 65 per cent.⁵ Declining world prices in 1979-80 led to the introduction of a variable tariff.⁶ In 1982, in response to further declines in frozen concentrate orange juice prices, a composite tariff consisting of a 10 per cent ad valorem tariff and a specific rate tariff⁷ of 75 cents per kilogram of Total Soluble Solids was introduced.⁸ This arrangement provided fluctuating levels of assistance, which were highest when import prices were at their lowest. In 1988, with prices continuing to decline, an ad valorem tariff of 35 per cent was implemented along with a floor price anti-dumping duty of A\$1640 per tonne. The ad valorem tariff was progressively reduced until 1 July 1996 when it reached 5 per cent. This tariff rate still applies to imports of frozen concentrate orange juice. The bound tariff rate — which is the maximum allowed under World Trade Organization rules — is 24 per cent.

There are no tariffs on imports of fresh citrus. Jams, jellies and marmalades made from citrus fruit are subject to a 5 per cent tariff.

5 An ad valorem tariff is a tariff levied at a constant proportion of the value of imported goods — for example, 5 per cent.

6 A variable tariff applies where a threshold price for imports has been set and the landed value is beneath this. The tariff varies according to the difference between the threshold price and the landed value.

7 Specific rate tariffs involve the imposition of a fixed level of tariff regardless of the value of imported goods.

8 The ad valorem tariff applying to imports from developing countries was set at 5 per cent. The specific rate tariff declined by 5 cents a year until 1988, at which time it was equal to 50 cents a kilogram.

Sales tax exemption

Prior to 1986, fruit juices containing 25 per cent or more local content were exempt from the 20 per cent sales tax. In 1986 the exemption was replaced by a sales tax concession whereby fruit juice with 25 per cent or more local content was taxed at 10 per cent (of the wholesale price) compared with 20 per cent for other beverage products. These measures made the price of eligible juice products lower relative to products taxed at the standard rate.

This concession was removed in 1995 in accordance with Australia's World Trade Organization commitments. In its place a differential tax arrangement was introduced — all orange juice containing at least 25 per cent orange juice was subject to a wholesale tax of 12 per cent. Orange juice containing less than 25 per cent orange juice was taxed at the higher rate of 22 per cent. This arrangement was replaced with the introduction of the Goods and Services Tax on 1 July 2000. Under this tax all fruit juice products containing at least 90 per cent fruit juice are exempt. Products containing less than 90 per cent juice are subject to a tax rate of 10 per cent.

A number of participants considered that tariff and tax assistance may have hindered adjustment in the citrus industry. The South Australian Government submission to this inquiry quoted an ABARE report (1998) that concluded that the protection of the citrus industry via tariffs and the sales tax exemption had distorted price signals to growers and led to higher levels of production than otherwise would have occurred. Its submission concluded:

While the intention may have been to give growers the time and cash-flow to enable a shift to more internationally-competitive crops, in fact the reverse happened, with many millions of dollars being invested in assets which had little chance of long-term viability. Moreover, this meant that land, water and financial assets were directed away from crops, including navel oranges and easy-peel citrus varieties, which have demonstrated long-term viability. (sub. 82, p. 5)

Summary

Government programs support the citrus industry in the areas of R&D and market development. Government policies have helped to improve the industry's competitiveness and economic efficiency by reducing distortions resulting from tariffs and tax assistance. More specifically, R&D support is provided to address the possibility for under-investment in R&D. This is achieved by providing a legislative framework that requires all citrus growers (the primary beneficiaries of R&D) to contribute to the costs of research, and also by providing funding for research. Government support is provided to address the potential for under-investment in

market development, which may arise from reputational externalities, knowledge transfers, and externalities stemming from knowledge about new markets.

The programs have been used by the citrus industry. Complete data concerning use by the citrus industry of all programs are not available. Nonetheless, information available suggests that these programs are well utilised. For example, HAL spent \$2.1 million on citrus industry R&D in 2000-01 (funded by the industry and government) and part and full-citrus exporters received \$483 200 in funding for marketing and promotional expenses incurred in export markets under the Export Market Development Grants scheme.

A particular issue may arise if some people in the citrus industry are impeded from gaining access to these broadly available programs. The Commission has not been presented with evidence suggesting that citrus growers face such impediments.

FINDING 6.1

The citrus industry has used the generally available assistance programs to increase investment in research and development and market development, addressing possible market failure.

Potential impediments for the industry relating to export control powers and market access are discussed in chapter 7.

6.4 Impact and effectiveness of programs to facilitate adjustment to economic change

Agriculture Advancing Australia

The Agriculture Advancing Australia package was established in 1997 (replacing the Rural Adjustment Scheme). This program received funding of \$309 million over four years (to July 2004) in the 2000-01 Commonwealth Budget.

Agriculture Advancing Australia involves eleven different programs aimed at helping primary producers to become more competitive, sustainable and profitable by: helping farmers to profit from change; giving farmers access to an effective safety welfare net; providing incentives for ongoing farm adjustment; and encouraging social and economic development in rural areas. The discussion here focuses on the adjustment assistance provided by five of these programs: the Farm Management Deposit scheme, FarmBis, Farm Help, the Rural Financial Counselling Service and the Rural Partnership Program (RPP).

Farm Management Deposit scheme

The Farm Management Deposit scheme is designed to deal with variability of income over time and the tax implications of that variability. The scheme provides farmers with an effective tax-linked savings mechanism to allow them to set aside pre-tax income from the good years to help them manage their businesses better during the more difficult years. This scheme replaced the Income Equalisation Deposit and Farm Management Bond schemes (AFFA 2002).

FarmBis

FarmBis has two components: FarmBis — Skilling Farmers for the Future; and FarmBis Australia.

FarmBis — Skilling Farmers for the Future is a Commonwealth/State program which provides financial assistance to farmers, farm employees and farm managers to undertake training to improve their business and natural resource management skills. Responsibility for the management of the program rests with the States and Territories. The Commonwealth allocated \$120 million over three years for the program in the 2000-01 budget. The Commonwealth Government matches funding proposals from each State and Territory Government on a dollar for dollar basis. As of October 2001, \$134 million had been committed to specific projects (half of which was from the Commonwealth).

This program has three broad objectives: increasing participation in learning activities to enhance profitability, competitiveness and sustainability; developing greater acceptance of the benefits of continuous learning and skills development; and enhancing the capacity to identify and gain access to appropriate learning activities (Hassall & Associates 2001). This program provides funding only — it does not provide training or develop new courses and materials.

In Victoria and South Australia, FarmBis provides a 75 per cent subsidy for training activities up to a maximum \$750 per activity and a maximum \$3000 per year per participant. In the South Australian program, a lower subsidy — 50 per cent — applies for quality assurance activities. In New South Wales, FarmBis provides a 75 per cent subsidy for training activity to a maximum of \$2000 for each activity.

Information on the uptake of training measures across the citrus industry is not available — however, 776 citrus farmers have applied for the quality assurance training subsidy in the Riverland region of South Australia (Riverland Strategy Facilitator, pers. comm., 26 March 2002).

FarmBis Australia is a Commonwealth program focused on the broader training and development needs of those working in Australian agricultural industries. The program started in July 2000. Activities with the potential for a wide application, such as a pilot industry training program, are eligible for funding. Proposals are solicited from industry associations and other groups twice a year, with applicants being expected to make a direct financial contribution to the cost of the project. The Commonwealth allocated \$10 million for this program in its first year of operation.

Hassall & Associates (2001) completed a mid-term review of the FarmBis — Skilling Farmers for the Future program for the Commonwealth Government in July 2001. The authors considered that over the first two years the program made a positive contribution to achieving its objectives, with very good progress on increasing participation in learning activities and less progress on greater acceptance of the benefits of continuous learning and increasing farmers' capacity to identify, undertake and influence appropriate learning activities.

Farm Help

Farm Help — Supporting Families through Change (formerly the Farm Family Restart scheme) provides assistance to farm families in severe financial difficulties. This program is administered by Centrelink.

To be eligible for assistance, applicants must have been farming for at least two years, still be in control of the farm, prove that they earn a majority of their income from the farm activity and are unable to borrow further against their assets. The first stage of the program provides income support for up to 12 months, conditional on the applicant seeking professional advice on the financial viability of their farm after 3 months. Up to \$3000 is provided for farmers to obtain this advice. In relation to the income support available through Farm Help, the Sunraysia Rural Counselling Service Inc. commented that:

... [it] is a better alternative to Newstart in that farmer recipients are not required to meet an activity test, that is 'be work ready' and thus have to leave farm work. (sub. DR90, p. 2)

Farm Help also provides re-establishment and re-training grants. Re-establishment grants (the maximum being \$45 000) are subject to an assets test and the farm being sold within 12 months of the applicant joining Farm Help. To qualify for the full grant an applicant may have up to \$100 000 in net assets after selling the farm. (The grant is reduced by \$2 for every \$3 in assets above this level.) Grant recipients also may receive a \$3500 re-training grant to help them prepare for a career outside farming.

Re-establishment grants are designed to be an incentive for farmers in financial difficulty, who are judged to be unviable in the long term, to leave the industry. This is intended to address impediments to freer movement of assets and people out of agriculture.

The Commission notes that the re-establishment grants made available to producers in the dairy and pork industries under their respective industry adjustment schemes were modelled on the Farm Help program. Farmers in the dairy industry could receive tax free grants of up to \$45 000 (subject to an assets test identical to that outlined above) provided that they met the relevant eligibility criteria.⁹ The conditions attached to re-establishment grants in the pork producer exit program were different from those in the dairy program, and the maximum grant of \$45 000 was taxable.¹⁰

A number of submissions considered that the size of the re-establishment grants is too low. The Sunraysia Rural Counselling Service Inc. commented that:

Whether re-establishment grants are sufficiently high enough is a point of contention as many accessing the re-establishment grants leave farming with very little equity or financial resources and the grant affords a meagre opportunity to restart their lives. (sub. DR90, p. 2)

The Murrumbidgee Irrigation Area (MIA) PowerPACT and MIA Council of Horticultural Associations commented that:

Local growers have identified that the present assistance available is uncomfortably low due to the high re-establishment cost within the MIA. The cost of housing in the area has been identified in the Premiers Five Point Plan for Griffith as a major impediment to the growth of Griffith ... the grant was obviously intended for towns and regions in dryland areas with low farm and housing prices and not for the MIA. (sub. 71, p. 11)

Similarly, the ACG stated:

The \$45 000 maximum available to growers to leave the industry provides insufficient assistance to growers wishing to leave the industry. A farmer selling up and realising cash in hand of \$100 000 after debt repayment would need to raise at least a further \$100 000 to purchase a house in Griffith. (sub. 72, p. 40)

⁹ The eligibility criteria were identical to those which apply for re-establishment assistance under the Farm Help program.

¹⁰ A maximum grant of \$45 000 was available to producers if they had net assets of \$90 000 or less. Grants were reduced by \$2 for every \$5 in assets above this level to a maximum net asset value of \$202 500. Producers had to agree not to engage in pork production for five years after the payment of financial assistance, but they could enter into another area of agricultural production.

These comments suggest that there may be different perceptions of the objectives of re-establishment assistance. In particular, the comments suggest the citrus industry may consider that the aim is, or should be, to allow farmers to leave their farm and purchase a house in the nearest town. This is not a specific objective of the re-establishment grants and it is not clear that it should be.

The mid-term review of the Rural Adjustment Scheme concluded that the re-establishment grant may actually delay adjustment. It noted:

There is no objective evidence that the availability of re-establishment grants has accelerated farmers' decisions to leave agriculture. Re-establishment grants may artificially hold up land values and may act as a disincentive to leave farming. (McColl, Donald and Shearer 1997, p. 82)

The Commission notes that the reluctance of primary producers to take up exit programs may also be influenced by demographic factors. The ACG commented that:

... put simply, the fact that a lot of growers find it hard to exit is because they've got no options to do something else. I mean, most of them are probably nearing retirement age, so it's an age factor, and it's very difficult for them to just leave something that they have been doing for the last 45 years or so. They probably don't have skills to go back into the workforce, and I guess perhaps they probably don't have a good superannuation nest egg. So I think it's very difficult. (trans., p. 166)

The information available on the level of access by citrus growers to the Farm Help program from Centrelink is limited. Personal communication from Centrelink indicates that between November 2001 and March 2002, 25 producers in the fruit industry have been approved for income support. With respect to re-establishment assistance, Centrelink indicated that 90 producers in the agricultural sector received exit grants in the period between July 2001 and January 2002. Centrelink does not compile specific figures on the use of exit grants by the citrus industry. However, Riverina Citrus stated that:

... [in] the financial year 2000-01 ... not one of the people that had taken up the exit re-establishment grant were [in] citrus. (trans., p. 103)

The case for industry-specific adjustment assistance is discussed in chapter 9.

Rural Financial Counselling Service

The Rural Financial Counselling Service provides financial advice to primary producers and small businesses experiencing financial hardship in rural areas. This advice — which is free and confidential — can include financial assessments, help with loan applications and information on, and referral to, other government

assistance schemes such as FarmBis. Sunraysia Rural Counselling Service Inc. noted that:

Currently there are Rural Counselling Services operating in the Sunraysia and MIA and until recently a Riverland service was available, although steps are in place to restart the Riverland service. As these regions are the major citrus producing locations in Australia, citrus growers can be adequately catered for by Rural Counselling Services. (sub. DR90, p. 1)

Personal communication from the Sunraysia and Murrumbidgee Valley rural counsellors has indicated that citrus growers are active users of rural financial counselling services. In the Murrumbidgee Valley, over 30 per cent of the counselling service's 169 clients are from the citrus industry (MVRCS 2001).

The Rural Financial Counselling Service — which operates nationally — receives 50 per cent of its funding from the Commonwealth Government (which has committed \$5.4 million annually until June 2004), with the remainder coming from State governments and local communities.

A review of the Rural Financial Counselling Service in 2000 by the Social Sciences Centre of the Bureau of Rural Sciences recommended that the service continue to be orientated towards providing needs-based financial counselling for rural people experiencing financial difficulties. In particular, it was recommended that financial counselling services should be focussed on agricultural and social adjustment rather than attempting to meet development or welfare objectives (BRS 2000).

Rural Partnership Program

The RPP is a regional assistance program which operates in 12 regions throughout Australia. The program aims to encourage the development of profitable and self-reliant industries in regional areas which can operate competitively and adapt to changing market conditions. The funding received by each region varies according to the proposals within each suggested strategy, and is separate from the budgetary funding provided for the other measures in the Agriculture Advancing Australia program.

Citrus is a significant horticultural activity in three of the regions in which the program operates — Sunraysia, the Riverland and the MIA. (Grape growing is also a prominent industry in the Riverland and Sunraysia areas.) Whilst the Sunraysia program, Kickstart, concluded in May 2001, the Riverland and MIA programs are still operating (table 6.1). The MIA strategy, PowerPACT, is being targeted at commercial citrus properties during its first year of operation.

The key elements of these programs include subsidising business plans, individual training and development activities, redevelopment assistance, and property purchase assistance. The programs are also designed to work in conjunction with other assistance programs, by referring farmers to these programs (such as FarmBis and Farm Help). Appendix D discusses program components in more detail.

The level of uptake of these measures is shown in table 6.1. There are differences between the measures in each program. For example, the Kickstart and PowerPACT programs provide subsidies of up to \$2700 for the preparation of a business plan. In the Riverland program, a subsidy of \$1000 or \$1500 is available, depending upon the participant's involvement in other parts of the program.

Table 6.1 Use of RPP measures by citrus growers^a

| <i>Measure</i> | <i>Kickstart Sunraysia</i> | <i>Riverland</i> | <i>MIA PowerPACT</i> |
|---|----------------------------|--|--------------------------------|
| Business plans | 128 (\$300 666) | 19 (\$19 000) | 50 (\$148 500) ^b |
| Training assistance | 47 (\$93 800) | Referral to Agriculture Advancing Australia FarmBis program | |
| Redevelopment assistance | 134 (\$562 864) | 24 (\$120 000) | 9 (\$121 723) |
| Property purchase assistance ^c | 11 (\$132 230) | .. | Applications open |
| Re-establishment assistance | 0 ^d | .. | .. |
| Export enhancement subsidies | .. | 7 | .. |
| Benchmarking | .. | .. | 29 (\$12 760) |
| Total assistance received by citrus growers | \$1 089 560 | \$139 000 ^e | \$282 983 ^f |
| Total program funding | \$10 080 000 | \$5 000 000 | \$5 000 000 ^g |
| Duration of program | May 1997–May 2001 | March 1999–Dec 2002 | July 2001–July 2004 |

^a The associated expenditure, where known, is in brackets. ^b Around 132 citrus growers have received approval for business plans (MIA PowerPACT and MIA Council of Horticultural Associations, trans., p. 58). ^c Interest rate subsidies. ^d Asset conditions not met. ^e The exact figure is unknown — the program is ongoing and citrus-specific expenditure details for the export enhancement subsidies and the quality assurance training subsidies were not kept. ^f The exact figure is unknown as the program is ongoing. ^g Administrative costs account for 15 per cent of the total funding (MIA PowerPACT and MIA Council of Horticultural Associations, trans., p. 54) .. Not applicable.

Source: Agriculture, Fisheries and Forestry — Australia (pers. comm., 1 March 2002).

In each of these programs, applicants were required to complete a business plan as a part of the eligibility criteria for the grant components. Increasing the use of business planning by primary producers is an integral part of the RPP strategy for improving self-reliance in rural areas. Thus, a 'carrot and stick' approach was

employed to entice primary producers into the development of business plans and to ‘kick start a process of attitudinal change’ (PricewaterhouseCoopers 2000, p. 4).

The MIA PowerPACT and MIA Council of Horticultural Associations commented that:

The citrus industry, like most rural industries and other small businesses lacks a business planning focus. Business planning is not recognised as being a priority for the farming community. It is the role of Rural Partnership Programs to change this attitude. (sub. DR118, p. 6)

The evaluation of the Kickstart Sunraysia program noted that business plans were effective in increasing awareness of the importance of continual improvement, and helped to improve the management capabilities of farmers. This enabled farmers to adapt to the changes in their environment more effectively (Chapman 2000). Similarly, the MIA PowerPACT and MIA Council of Horticultural Associations observed that:

The initial view of most growers is that the business plans are undertaken in order to access funding for redevelopment or property expansion ... This attitude changes once they’ve done the business plan and a lot of them recognise that it’s a wonderful thing to do. (trans., p. 50)

However, the MIA PowerPACT and MIA Council of Horticultural Associations also stated that:

... funding dedicated to the citrus industry does not result in any immediate change or any immediate increase in profitability, and that has to be acknowledged. Although the government may have spent 7 or 8 million dollars on training for the citrus industry, that doesn’t mean that the growers involved are immediately more profitable. (trans., p. 50)

In order to secure a redevelopment grant, applicants had to demonstrate within their business plans how the grant would improve their productivity and viability. In the Kickstart Sunraysia program it was observed that:

The redevelopment grants [were] ... the most popular and recognised component of the Kickstart Strategy. (Chapman 2000, p. 101)

The evaluation of this program concluded that the redevelopment grants — which were oversubscribed — had improved grower viability and had flow-on effects to the regional economy. However, in assessing the amount of investment attributable to the redevelopment grants provided through the Kickstart Sunraysia RPP, PricewaterhouseCoopers observed that:

During the visit to Sunraysia a common theme of recipients was that they would have made the investments anyway, but had brought their investments forward under the

RPP. Thus, the value or impact of the RPP is much lower. (PricewaterhouseCoopers 2000, p. 27)

On the question of whether or not redevelopment grants help to increase the pace of adjustment in the citrus industry, the MIA PowerPACT and MIA Council of Horticultural Associations stated:

The nature of these grants ... [is such that] they actually reduce profitability because [growers] pull out bearing trees or they have a significant investment in new technology that might take them some time to recoup, so the use of the program to actually help those growers stick in there for another couple of years is probably not significant. (trans., p. 64)

The MIA PowerPACT and MIA Council of Horticultural Associations also expressed concerns about the ability of the redevelopment assistance available through the MIA program to meet the adjustment pressures within that area:

The MIA PowerPACT program has a total of 87 \$15 000 grants available for redevelopment and 20 grants of \$28 000 available for property expansion. These are not exclusively for citrus growers in the region but are for farmers across all of the MIA. There are approximately 1900 farmers owning 2200 farms across this area. On a per capita basis only just over one grower out of twenty five will be able to access grant funding through the program. Assistance for redevelopment for 107 growers is thought unlikely to result in structural reform across the industries of the MIA. (sub. 71, p. 9)

As a result of these concerns, MIA PowerPACT is presently seeking additional redevelopment funding from the New South Wales and Commonwealth Governments.¹¹ What is not clear from its submission, though, is how many farmers who actually meet the eligibility criteria for the redevelopment grants will not receive funding. The approval of funding for redevelopment assistance, for example, depends upon the business plan demonstrating the redevelopment's viability and the need for financial support in undertaking it (see appendix D). In addition to this consideration, the Commission notes that citrus growers — of which there are approximately 600 in the MIA — have received preferential treatment by way of exclusive access to the redevelopment grants within the PowerPACT program until July 2002. If evidence of eligible growers missing out on redevelopment grants emerges at that time, the Government would presumably reconsider the level of funding of this program.

¹¹ The measures proposed include an increase in redevelopment grants to cover a greater proportion of redevelopment costs, and the provision of funding for a number of enlarged exit grants.

Citrus Market Diversification Program

In November 1994, the Government introduced the Citrus Market Diversification Program. This five year, \$8.4 million program sought to facilitate adjustment in the industry following the reduction of the protective tariff measures. The program was designed to:

... help facilitate adjustment in the citrus sector by focusing towards more profitable markets where Australia might have a comparative advantage over our international competitors. A strategy to achieving that goal was to focus on the export of fresh fruit and fresh juice. (Troeth 1999)

Projects funded under the program were designed to shift the focus of commercial growing away from the low value frozen concentrate orange juice market towards more profitable markets, with an emphasis on exports. These projects were in four categories (discussed in more detail in appendix D):

- quality assurance — around \$0.8 million was spent on programs to improve quality control activities and increase the level of awareness of this issue;
- domestic promotion — around \$1.3 million was spent on promotions to increase sales of fresh orange juice and raise consumer awareness of the fruit fly project being undertaken in the eastern States;
- market access and promotion — around \$4 million was directed towards improving market access opportunities for Australian products (particularly in Asia) and promoting exported goods in markets where entry was not an issue; and
- industry development — around \$2.1 million was directed to projects to improve the coordination of production and marketing activities.

No monies were given directly to industry participants under this program.

There are differing views within the citrus industry on the impact of the program. Riverina Citrus noted that:

The \$8.4 million that was awarded to the industry in the late 90s was for export development. It is believed that a great deal of this money was spent on projects and consultants, with little benefit to the 'grass roots' grower. (sub. 45, p. 6)

In contrast, the Australian Fruit Juice Association commented that the program:

... has assisted the growing industry to increase supply [of fresh fruit and fresh juice] to both the domestic and export market which has been a welcome development. The processing industry has also welcomed increased domestic production which is suitable for fresh-type juicing ... the exports of fresh fruit have increased from tonnage [in] 1994-95 of 108 358 to 180 637 in 2000-01, an increase of 66.7 per cent in 6 years. This

increase in the market appears to be a direct result of the Commonwealth Citrus Market Diversification program. (sub. 76, p. 1)

The ACG also noted that:

In 1995 the industry benefited from an \$8.4 million Citrus Market Diversification Program aimed at: driving market adjustment with a particular emphasis on exporting; implementing growth strategies; developing high priority expenditure activities; and reviewing the structure of Commonwealth/State marketing arrangements. While this program was valuable, particularly in developing export markets, no funding was available to provide direct grower support and on-farm adjustment. (sub. 72, pp. 36–37)

Hassall & Associates (1999) completed an evaluation of the Citrus Market Diversification Program for the Commonwealth Government in April 1999. The authors concluded that the program had laid some foundations for the long-term viability and growth of the industry. The program attempted to give some ownership to the industry as well as bring together representatives of a fragmented industry. The authors identified a number of short-term outcomes, including industry capacity building and quality assurance, but emphasised that outcomes relating to projects in areas such as market access and R&D would only become apparent over the longer term. The program was also seen as contributing to an export-focused culture in the industry.

Some of the funds from the Citrus Market Diversification Program were directed towards facilitating improved access for the citrus industry to markets in Asia. Projects included verification trials of disinfestation treatments for exports to Korea and Japan (see appendix E). Following Korean approval for the commencement of orange exports in 2000, 1260 tonnes were exported that year and 910 tonnes in 2001. These exports were valued at around \$1.9 million and \$2.1 million, respectively. The Japanese authorities approved the export of mandarins in March 1999. Since that time there has been a steady level of mandarin exports: nearly 1600 tonnes in 1999, 1441 tonnes in 2000 and 1734 tonnes in 2001. These exports were valued at over \$3.4 million in 1999 and 2001, and \$2.6 million in 2000.

Regional Assistance Program

The Regional Assistance Program is a Commonwealth program which provides seed funding for projects that are of value to the community and likely to generate employment in metropolitan, regional and remote areas of Australia. One project of relevance to the citrus industry has been funded through the Regional Assistance Program — the Citrus Development Strategy for New South Wales. Total cash funding for this project is \$160 000 (of which \$40 000 is being contributed by the industry).

This project aims to determine the feasibility of developing a large-scale citrus industry in central and north western New South Wales and to develop a revitalisation strategy for the citrus industry in southern New South Wales. Central and northern New South Wales — presently cotton growing areas — are considered to be a potential growth area for the citrus industry as a result of its climate, soil conditions and ready access to water. The development proposal for this area involves a possible investment of \$400 million in 4000 hectares of citrus orchards and a further \$10 million in processing facilities. A preliminary report on the strategy was released in March 2001 (McMullen, Revelant and Hutton 2001) and the final report is scheduled for release in April 2002.

Summary

Governments may provide adjustment assistance to facilitate adjustment and ease transitional pressures. The programs available to the citrus industry to facilitate adjustment and economic change are aimed at addressing a number of problems similar to those faced by the agriculture sector more broadly. Specifically, the programs:

- provide support to farmers to help them make informed decisions about their business prospects (for example, support for professional advice on the financial viability of their farm, support to identify ways to improve viability, and support for advice on life choices) (FarmBis, RPP);
- provide temporary income support and assistance to exit agriculture where businesses are not viable, before their farm assets are severely depleted and give owners greater control over their future (Farm Help, RPP); and
- provide support to deal with the tax implications of variability of farm income (Farm Management Deposit scheme).

In considering the impact and effectiveness of programs designed to facilitate adjustment and economic change in the citrus industry, the Commission has drawn upon independent reviews of those programs. It has sought to supplement those reviews by assessing the programs on the basis of established design and evaluation principles (tables 6.2 and 6.3). It should be noted, however, that in almost all instances this task is complicated by the fact that these programs affect a large number of, usually unknown, heterogenous firms (Lattimore et al. 1998).

Generally, each of the independent program reviews (see above) found the program concerned to be effective in encouraging the process of adjustment. The Citrus Market Diversification Program was found to have laid some foundations for the long-term viability and growth of the industry, and in particular encouraged a greater focus on export markets. The evaluation of the Kickstart RPP concluded that the program had improved the management capabilities of farmers, enabling them

to adapt to the changes in their environment more effectively. The FarmBis review found that the program had been successful in increasing farmers' participation in learning activities.

The Commission's consideration of these programs against design and evaluation principles leads it to the view that the programs available to the citrus industry have been broadly effective in facilitating necessary adjustment within the industry.

In the position paper for this inquiry, the Commission sought information on instances in which persons eligible for assistance were unable to gain access to government programs facilitating adjustment. Although citrus growers have been critical of the level of assistance available under these programs, evidence of eligible persons missing out on assistance has not been provided. If evidence of such a problem were to become available, the Government would need to reconsider the level of funding provided to these programs.

FINDING 6.2

Generally available assistance programs appear to be broadly effective in targeting the structural adjustment problems confronting some citrus growers.

Table 6.2 Assessing the programs to facilitate adjustment to economic change in the citrus industry against design and evaluation criteria — AAA and Citrus Market Diversification Program

| | <i>AAA FarmBis</i> | <i>AAA Farm Help</i> | <i>AAA Rural Financial Counselling Service</i> | <i>Citrus Market Diversification Program</i> |
|---|---|---|---|---|
| <i>Program description</i> | | | | |
| Objectives | Overcome information deficiencies and help farmers make informed business and management decisions | Assist farm families in severe financial difficulties | Inform farmers experiencing financial hardship of the various options available to them | Assist the citrus industry in developing fresh fruit and fresh juice markets |
| Key measures | <ul style="list-style-type: none"> • Funding to training providers | <ul style="list-style-type: none"> • Income support • Exit grants | <ul style="list-style-type: none"> • Financial assessments | <ul style="list-style-type: none"> • Quality assurance • Domestic promotion • Market access • Industry improvement |
| <i>Criteria</i> | | | | |
| Eligible persons received assistance measures | No evidence to the contrary | No evidence to the contrary | .. | .. |
| Facilitate adjustment | Yes — improves the business and management skills of farmers and farm employees | Income support has been used by the citrus industry, but there has been no use of exit grants | Yes — provides information to farmers on the options facing them | Yes — fresh fruit and fresh juice markets have been growth areas for the industry |
| Transparency | Yes <ul style="list-style-type: none"> • Open to all farm employees and farmers • Known levels of subsidisation | Yes <ul style="list-style-type: none"> • Open to all farmers meeting eligibility criteria • Standardised income support and exit grants | Yes <ul style="list-style-type: none"> • Open to all primary producers and small businesses in rural areas | Yes <ul style="list-style-type: none"> • Funding applications, and subsequent allocations, managed by the Citrus Market Development Group • Project list publicly available |

(Continued on next page)

Table 6.2 (continued)

| | <i>AAA FarmBis</i> | <i>AAA Farm Help</i> | <i>AAA Rural Financial Counselling Service</i> | <i>Citrus Market Diversification Program</i> |
|--|--|--|--|--|
| User contributions | Yes | No | No | No |
| Maintain market incentives | Yes — participants are required to contribute to the cost of training activities | Yes — income support is means tested, exit grants are also means tested with a graduated cut-off | Yes — counselling services seek to explore the options for maintaining viability | Yes — the program has created new opportunities in high return markets |
| Avoids program duplication | Yes | Yes | Yes — includes referral to other programs | Yes |
| Subject to regular review | Yes — Mid-term review in July 2001 | Yes — predecessor program reviewed in 1997 | Yes | Program completed — reviewed in 1999 |
| Compatible with general safety net | Yes | Yes | Yes | .. |
| Does the program appear to achieve objectives? | Yes | Yes | Yes | Yes |

.. Not applicable.

Table 6.3 Assessing the programs to facilitate adjustment to economic change in the citrus industry against design and evaluation criteria — Rural Partnership Program

| | <i>Rural Partnership Program</i> | | |
|---|---|--|---|
| | <i>Kickstart Sunraysia</i> | <i>Riverland</i> | <i>MIA PowerPACT</i> |
| <i>Program description</i> | | | |
| Objectives | Business planning seeks to support primary producers to help them make informed decisions about the management of their farms. Redevelopment grants are designed to accelerate the implementation of measures to improve farm profitability and sustainability. | | |
| Key measures | <ul style="list-style-type: none"> • Business planning • Training assistance • Redevelopment grants • Property purchase assistance • Re-establishment assistance | <ul style="list-style-type: none"> • Business planning • Redevelopment grants • Export enhancement subsidies | <ul style="list-style-type: none"> • Business planning • Redevelopment grants • Property purchase assistance |
| <i>Criteria</i> | | | |
| Eligible persons received assistance measures | No evidence to the contrary | | |
| Facilitate adjustment | Yes — business planning helped inform farmers of their financial situation and future outlook. Some farmers received assistance under other program measures. | Yes — business planning is helping to inform farmers of their financial situation and future outlook. However, participation by the citrus industry in the program has been lower than that observed in Sunraysia. | Applications are still open for this program. Too early to evaluate outcomes. |

(Continued on next page)

Table 6.3 (continued)

| <i>Criteria</i> | <i>Rural Partnership Program</i> | | |
|--|---|--|--|
| | <i>Kickstart Sunraysia</i> | <i>Riverland</i> | <i>MIA PowerPACT</i> |
| Transparency | Yes <ul style="list-style-type: none"> • For growers operating properties of between 8–25 hectares • Known levels of subsidisation for business plans • Standardised grants for property expansion and redevelopment | Yes <ul style="list-style-type: none"> • For all primary producers in the area • Known levels of subsidisation for business plans and export enhancement • Standardised grants for property expansion and redevelopment | Yes <ul style="list-style-type: none"> • For commercial citrus growers only in its first year, open to all primary producers in the area thereafter • Known levels of subsidisation for business plans • Standardised grants for property expansion and redevelopment |
| User contributions | Yes — although, participants were not required to contribute to re-establishment assistance | Yes | Yes |
| Maintain market incentives | Yes — participants contribute to the cost of business planning and grant components are means tested | | |
| Avoids program duplication | Yes — the Kickstart program pre-dated the FarmBis program. Also included a top-up grant for exiting producers. | Yes — includes referral to other programs | Yes — includes referral to other programs |
| Subject to regular review | Yes <ul style="list-style-type: none"> • Mid-term review of the RPP released in January 2000 • Evaluation of the Kickstart Sunraysia Program released in December 2000 | Yes <ul style="list-style-type: none"> • Mid-term review of the RPP released in January 2000 • Program to be reviewed once it has finished | Yes <ul style="list-style-type: none"> • Mid-term review of the RPP released in January 2000 • Program to be reviewed once it has finished |
| Compatible with general safety net | Yes | Yes | Yes |
| Does the program appear to achieve objectives? | Yes | Too soon to tell | Too soon to tell |

7 Potential impediments to international trade

Amongst other things, the terms of reference require the Commission to report on whether further action, by government or industry, is needed to enhance the outlook for the industry. Before addressing these questions, the Commission has assessed whether specific barriers identified by participants are adversely affecting the performance or competitiveness of the industry, or impeding industry adjustment.

Participants identified a number of potential barriers to improved performance. These reflected concerns relating to existing regulatory arrangements and regimes, including:

- government-related impediments to international trade that make it difficult for Australian producers to take advantage of opportunities in export markets;
- inadequate product labelling laws that allow some producers to mislead consumers about the content of some products, especially fruit juices; and
- government policies that restrict growers' access to key inputs or increase the costs of those inputs.

Other concerns were associated with economy-wide factors that influence the availability and cost of labour, and perceived imbalances in negotiating power along the supply chain, favouring large processors and large retail chains at the expense of growers' returns.

This chapter considers two issues related to international trade:

- limited market access and/or high trade barriers in some overseas markets; and
- potentially restrictive export control arrangements.

Potential impediments in domestic markets are considered in chapter 8.

7.1 Market access

As outlined in chapter 2 and chapter 5, the citrus industry is becoming increasingly trade-oriented, particularly through the growth in exports of fresh fruit and fresh

juice. Nonetheless, some participants pointed to tariff and quarantine barriers in other countries as an impediment to the growth of the Australian industry.

The Australian Citrus Growers Inc. (ACG) stated:

... the global citrus market remains highly distorted through:

- tariff barriers against product entry; and
- phytosanitary and quarantine procedures which are frequently used as trade barriers. (sub. 72, p. viii)

The ACG pointed out that the tariffs imposed by a number of countries, to which Australia is trying to export, are considerably higher than those imposed by Australia on imports of citrus products. It would welcome steps to reduce those tariffs.

The ACG claimed that quarantine barriers — or phytosanitary protocols — are used by foreign countries to delay access to their export markets.

The Australian citrus industry is continually frustrated by the long time delays in negotiating access arrangements for fruit into overseas markets. Examples are the drawn out procedures needed to get some overseas countries to recognise area freedoms with respect to fruit fly and in gaining permission for water treatments. (sub. 72, p. 27)

The Citrus Board of South Australia (CBSA) raised the same issues as the ACG, stating:

... the international market is not a level playing field. This is evidenced by:

- tariff barriers in importing countries; and
- the use of quarantine and phytosanitary procedures as trade barriers in importing countries. While South Australia is accepted as having fruit fly area freedom by some countries others continue to block access via technicalities. (sub. 78, p. 7)

The Queensland Fruit and Vegetable Growers (QFVG) considered that most of its markets are subject to quarantine and non-quarantine barriers:

Notwithstanding this export performance the Queensland industry has regulated, limited, restricted or nil access to most of its current and potential export markets due to quarantine restrictions (Queensland fruit fly and citrus black spot), and in many cases by non-quarantine barriers such as restrictive quotas and high tariffs. (sub. 81, p. 5)

Current arrangements

During the World Trade Organization's Uruguay Round of Multilateral Trade Negotiations — which was largely completed in 1994 — a timetable for the easing

of agricultural tariff barriers was established, and an agreement on the use of quarantine restrictions in agricultural trade was reached. This agreement — the Agreement on the Application of Sanitary and Phytosanitary Measures — acknowledges the legitimate use by members of measures to protect against risk to human, animal or plant life or health, whilst curbing their use in protecting domestic producers from international competition.

In discussions on trade barriers — both tariff and phytosanitary — the citrus industry is served by the Commonwealth through the Department of Foreign Affairs and Trade, and Biosecurity Australia (BA). The Department of Foreign Affairs and Trade is responsible for discussions on tariff issues, while BA is responsible for discussions on quarantine barriers and the associated technical issues.

Tariff barriers in other countries, whilst a significant issue for the citrus industry, are being progressively reduced in accordance with World Trade Organization commitments (table 7.1). Nonetheless, tariff barriers remain and the current multilateral trade negotiations, launched in Doha in November 2001, provides an avenue to further reduce tariff barriers facing Australian citrus exporters.

Table 7.1 Applied tariff rates for imports of Australian citrus, 1996 and 2001

| <i>Country</i> | <i>Year</i> | <i>Unit</i> | <i>Oranges</i> | <i>Mandarins</i> | <i>Fresh juice</i> |
|----------------|-------------|-------------|----------------------|-----------------------|----------------------|
| Hong Kong | 1996 | % | – | – | – |
| | 2001 | % | – | – | – |
| Indonesia | 1996 | % | 25 | 25 | 25 |
| | 2001 | % | 5 | 5 | 5 |
| Korea | 1996 | % | 50/89.2 ^a | 50/156.8 ^b | 50/58.8 ^c |
| | 2001 | % | 50/64.7 ^d | 50/148.8 ^e | 0/55.8 ^f |
| Philippines | 1996 | % | 30 | 30 | 30 |
| | 2001 | % | 10 | 10 | 10 ^g |
| Singapore | 1996 | % | – | – | – |
| | 2001 | % | – | – | – |
| Taiwan | 1996 | % | 40 | 40 | 40 |
| | 2001 | % | 20/30 ^h | 35 | 30 |
| United States | 1996 | Cents | 2.1 per kg | 2.1 per kg | 5 per L |
| | 2001 | Cents | 1.9 per kg | 1.9 per kg | 4.5 per L |

^a Less than/more than 19 669 tonnes. ^b Less than/more than 1351.2 tonnes. ^c Less than/more than 55 000 tonnes. ^d Less than/more than 43 011 tonnes. ^e Less than/more than 1817.3 tonnes. ^f Less than/more than 55 000 tonnes. ^g Juice products that are not from concentrate. ^h 1 March to 30 September/1 October to 28 February. – Nil.

Source: Department of Foreign Affairs and Trade (pers. comm., 24 January 2002).

The Commission also notes that some countries provide significant additional support to their citrus industry through government subsidies and programs. For example, the South Korean Government supported the purchase and destruction of

excess crop in 2001 and the Italian Government funded a three-year National Citrus Plan focusing on improving crop quality, variety renewal and market information (CBSA, sub. DR130).

RECOMMENDATION 7.1

The Government should use the opportunity provided by the current multilateral trade negotiations in the World Trade Organization to seek further reductions in overseas trade barriers faced by citrus producers.

Technical discussions on phytosanitary barriers

Technical discussions on phytosanitary barriers to trade are typically carried out by BA on a case-by-case basis and may involve the submission of detailed research which is then considered by the National Plant Protection Organisation in the other country. Where agreement on conditions for access is reached, compliance with these is monitored by the Australian Quarantine and Inspection Service (AQIS) through its inspection and certification activities.

The citrus industry has raised concerns about the way in which priorities for technical discussions on phytosanitary barriers are set, the way they proceed, the time they take and the outcomes they produce.

The Australian Horticultural Exporters Association Inc. (AHEA) commented that:

Even when the Horticultural [Industry] Market Access Committee assigns priority to citrus above all other horticultural commodities for access negotiations to a particular country, the Federal government applies such inadequate personnel and support resources to this process that successful access is delayed by years. (sub. 74, p. 2)

Similarly, the QFVG said:

Biosecurity Australia is ... perceived to be a weak negotiator by industry. Significant export access achievements take far too long, and the terms of access ultimately delivered [are] often burdensome, uneconomic, or unsuitable for the real world. (sub. 81, pp. 9–10)

Addressing phytosanitary barriers to Australia's exports is one of BA's principal activities. Another involves assessing the quarantine risks associated with commodities imported into Australia — this approach is typically described as Import Risk Analysis (IRA). BA, like other areas of government, has a finite amount of resources to undertake these activities.

Setting priorities

For technical discussions on phytosanitary barriers, BA follows a set of priorities developed in consultation with interested parties in industry and government through the Horticultural Industry Market Access Committee (HMAC).¹ Where the committee identifies a priority, a formal access request is submitted to BA, which assesses the supporting documentation before passing the request to its counterpart agency in the foreign country.

With respect to this arrangement — which was introduced in the late 1980s — BA noted that:

... historically priorities for market access were set by governments ... What was attempted to be done by creating this structure [HMAC] was to have industry determine its own priorities based on information that is best obtained from industries and suggest that to government to factor into a number of our own considerations. (trans., p. 488)

The AHEA considered that:

... in our view as exporters, there are many products ... nominated [by HMAC] for particular markets, which already the world's passed them by. There's no commercial opportunity any more, it doesn't exist, and yet [BA] which is undermanned and has a lack of resources has still got a wish list here submitted by industry which in many cases the products have no commercial opportunities, nor do we have the volume to support worthwhile exports. (trans., p. 443)

BA also noted that:

... the value of the HMAC arrangements has altered somewhat in recent years, due to a marked increase in the number of market access proposals that have been agreed by HMAC. (sub. DR94, p. 2)

In the Commission's view, the existing arrangements for setting priorities for market access bids need to be reviewed to ensure that resources are being used effectively to secure genuine commercial opportunities.

RECOMMENDATION 7.2

Biosecurity Australia and the Horticultural Industry Market Access Committee should review the effectiveness of the current processes for setting priorities for market access discussions, in order to ensure that the identified priorities reflect commercial opportunities.

¹ This committee is chaired by Horticulture Australia Limited, and includes representatives from the horticulture industry (including the AHEA) and government agencies. It meets every four months.

Discussions on phytosanitary barriers

When a market access request is lodged, it is the responsibility of the country receiving that request to determine the quarantine risks that may be associated with the importation of the given product. Under the sanitary and phytosanitary agreement, a number of requirements are imposed on the importing country. These include, for example, a requirement that all available scientific evidence is taken into account in the process of determining what phytosanitary measures, if any, are appropriate with regard to the product in question. Should any issues arise in the assessment of any request, BA is the first point of contact and responds to these accordingly.

Once a formal access submission has been prepared and submitted to the foreign country's National Plant Protection Organisation — BA's counterpart organisation — an IRA is then carried by that organisation on the proposed product (see appendix E). The ability of importing countries to complete these analyses has a significant influence on the time taken to deal with access requests. As Horticulture Australia Limited (HAL) observed:

While the [market access] process is relatively slow, up to 10 years for some products into some markets, the delays are usually experienced in the target markets furnishing the Australian industry with an Import Risk Analysis in response to Australia's pest and disease list. (attachment to sub. DR102)

The IRA process is inherently time-consuming (see case studies of mandarins to Japan and citrus to Korea in appendix E). Under the sanitary and phytosanitary agreement, the importing country is to notify the applicant quarantine authority of the anticipated processing period when an access request is lodged, and the applicant (quarantine) authority may inquire about the progress of an application at any time. To some extent, the citrus industry's perception of delays in the processing of their access requests may be based on overly optimistic expectations. The perception that BA is responsible for these delays may fail to take into account the complexity of technical discussions between governments, and the role played by other domestic parties.

Market access requests submitted by BA incorporate supporting technical research provided by research and development organisations, such as HAL and State government agencies. Industry organisations, however, can also carry out and submit research relevant to market access requests. For example, the QFVG noted that they prepared technical material for BA (sub. 81, p. 9).

BA emphasised that these supporting activities can influence the time taken to progress market access proposals:

Many of these activities are undertaken at a pace that is ultimately determined by funding and staffing resources within industry, State and Territory departments, research organisations and BA, as relevant. In this sense BA is as much a client of the relevant 'information providers' as industry is and must be cognisant of their constraints also. (sub. DR94, p. 2)

Disseminating information on technical discussions

According to a 1999 review of market access activities (QEAC 1999), the means by which information on the status of technical discussions is transmitted to people in the industry within Australia is not always clear. BA indicated that it provides:

... advice on the status of quarantine access discussions with other countries through a number of mechanisms, ranging from direct response to queries from interested parties, through to the publication of 'Highlights from Biosecurity Australia's current work program' in BA News. Importantly, each HMAC meeting is provided with a detailed update of quarantine market initiatives underway. (sub. DR94, p. 3)

Noting the sensitivity of information relating to quarantine access discussions, and the possibility of ramifications should this information enter the international arena, BA went on to state that:

HMAC members, representing peak industry sectors and/or regional bodies have the responsibility of disseminating the information provided onto their respective constituencies. (sub. DR94, p. 3)

Questions have been raised about the effectiveness of HMAC in disseminating information on the status of quarantine discussions to industry groups. The CBSA commented that:

A lot of the information is disjointed. It comes out through various organisations. As an industry player we would be getting information from the Australian Horticultural Exporters Association, via Riversun, via the Citrus Board of South Australia, via CGSA, via ACG, via AQIS and via various other subgroups within AFFA. (trans., p. 402)

In the Commission's view, it is important that there are arrangements in place for communicating to industry the status of access discussions with other countries. One benefit of providing information to interested parties on the status of their market access requests would be greater transparency. The time associated with the various stages of the IRA process in the foreign country, and the involvement of BA throughout the process, would become more readily apparent.

The Commission understands that a review of HMAC is currently under way. Advice from HAL indicates that HMAC will consider a draft of this review at its May 2002 meeting (attachment to sub. DR102).

In relation to improving communication on market access issues, HAL proposed that:

- a full-time representative be employed on horticultural market access issues;
- BA in consultation with HMAC redesign the access progression notification report and update it on a quarterly basis;
- BA provide HMAC with a copy of this report each quarter;
- HMAC circulate this to all industry associations each quarter;
- HMAC make it available more broadly to industry members; and
- HMAC and BA conduct regional forums each year to provide information and seek feedback more broadly from the whole of the horticultural industry (attachment to sub. DR102).

The review of HMAC presents an opportunity to re-examine the effectiveness of the current arrangements for setting market access priorities and also the arrangements currently in place for communicating to industry the status of market access discussions.

RECOMMENDATION 7.3

Biosecurity Australia and the Horticultural Industry Market Access Committee should clarify their roles and responsibilities for conveying information to interested parties on the status of current market access discussions, including their anticipated completion dates.

Resources for discussions on phytosanitary barriers

The speed at which market access requests are progressed is dependent in part upon the resources available to BA. However, as BA commented:

Resources devoted to our market access aspirations come from many quarters — industry, other government agencies, overseas authorities — and all parties' circumstances have an impact on the complexity and timing to finalisation of any particular access proposal. (sub. DR94, p. 4)

The possibility of Australia's market access requests being delayed as a result of BA carrying out an increasing number of IRAs was highlighted in the 1999

Quarantine and Exports Advisory Council review. The ACG also commented on this issue:

Biosecurity Australia devotes more resources to facilitating the import of citrus fruit to Australia than it does to assist in developing access arrangements for fruit into export markets. (sub. 72, p. 27)

BA acknowledged this issue, and pointed out that the approach it takes is similar to that employed by other countries:

Production of IRAs is the sole responsibility of each country undertaking assessment of import proposals, utilizing information obtained by the prospective exporting party and other sources. For this reason, Australia's IRA work program, as is the reverse case for our counterpart agencies overseas, is and will continue to be more resource intensive than our export market access work. The relevant point is whether the resources allocated for market access are appropriate and sufficient. (sub DR94, p. 4)

The sanitary and phytosanitary agreement requires that requests for access are considered 'without undue delay' (Annex C of the sanitary and phytosanitary agreement). Whether or not market access requests are being delayed by the level of resources devoted to IRAs is not clear, given that the outcomes in these situations are largely dependent on the counterpart National Plant Protection Organisation.

HAL considered that:

... the lobbying efforts on behalf of the Australian industry could be bolstered and include greater frequency and intensity. However, these actions require additional funding and resourcing to the current levels that have been apportioned by the Federal government for such activities. (attachment to sub. DR102)

In relation to the adequacy of its resources, BA commented that:

It is not clear that there are examples of citrus industry market access aspirations being delayed by insufficient resources alone. (sub. DR94, p. 4)

On the basis of the evidence presented to the inquiry on this matter, the Commission accepts BA's view. Accordingly, the Commission has not persisted with its draft recommendation concerning government consideration of means of augmenting BA's resources.

Outcomes of discussions on phytosanitary barriers

A number of participants expressed dissatisfaction at the outcomes achieved by BA in discussions on phytosanitary barriers. These concerns related mainly to the conditions (or protocols) imposed on imports of Australian citrus by the counterpart National Plant Protection Organisation, and differences in these conditions relative to those applying for shipments of citrus from competing suppliers.

For example, EJT Packers stated that:

... the citrus industry's biggest problem, the biggest single problem, is lack of decent access arrangements to foreign countries. If we had access arrangements to Japan, Korea, Taiwan, Philippines — just to name a few — on the same basis as we have access to America ... then none of us would need to be sitting here today. (trans., p. 254)

Similar concerns prompted the AHEA to suggest that:

Biosecurity Australia needs to be aggressively seeking ... less rigorous treatments/protocols to some of the markets in which we currently participate such as Japan, the United States and Korea. (sub. DR116, p. 1)

The arrangements secured by BA for access to the Korean and Japanese markets were of particular concern.

EJT Packers noted that for Korea:

... access is restricted severely by the quarantine issues and the poor access negotiations conducted by AQIS at the time, Biosecurity [Australia] now. Those access arrangements haven't changed. They're still as tedious and as cumbersome as they were in the year 2000. (trans., p. 253)

The CBSA also noted that:

We have area freedom, which is recognised by many countries around the world that is not recognised in Japan. That is not necessarily communicated by Biosecurity [Australia] or taken into consideration in their purview in developing access, because I think they're not really looking at trade elements on a WTO type basis. They're just looking to develop the access that the industry has put forward to them. (trans., p. 403)

With regard to the arrangements applying for access to the Japanese market, some participants commented on delays in BA's securing of approval for the use of in-transit cold disinfestation treatments.

The AHEA said that:

.. they've [BA] negotiated market access which in the end has resulted in an access which is not commercially viable [and] we've agreed to requirements which are just punitive and impossible to comply with ... All our competitors have got [in-transit cold disinfestation] treatment agreed to by the Japanese authorities and we're still waiting to clarify the exact arrangements. (trans., p. 441)

... it's taken the best part of the last three years to get in-transit cold treatment finally accepted by the Japanese, and they've put requirements on us that already, if the protocol stays as it is, it is commercially non-viable, because they require us to have all the phytosanitary certificates signed off in Japan by an AQIS officer. (trans., p. 442)

Noting that Israel and South Africa have ‘negotiated more favourable [terms for the] receipt of fruit’ (trans., p. 442), the AHEA stated that under the current arrangements:

Industry must bear the cost of flying an AQIS officer to Japan to meet each in-transit (cold disinfestation treated) shipment. This will make [exporting] excessively expensive ... (sub. DR116, p. 6)

In response to these claims, BA commented that:

... there is no discriminatory activity between Australia and any other location ... sometimes different formulations for achieving the same outcome might be agreed on a bilateral basis, but under the Japanese legislation there would be no substitute for inspection possible. A lot of the trade from those countries that they’re referring to [South Africa, Israel] now goes under an in-transit treatment arrangement. We now have the provision for that treatment for the first time, but it has not been used as yet. So the particular arrangements for that trade that have come to the attention of industry do seem more onerous than they would prefer, including the need for an AQIS inspector to fly with product to Japan and participate in the data downloading and phytosanitary certification process. (trans., pp. 490–491)

BA also noted the incremental approach in negotiating access arrangements, whereby improved terms of access for Australian produce are sought following the trialling of initial arrangements. With reference to the arrangements for the Korean market, BA stated that:

... as a general point we agree fundamentally that the conditions that enabled the trade to be initiated are not the same conditions that we would like to see applied to future trade. There are elements of those arrangements that allowed the trade to be initiated that we believe we have now collected sufficient data against to be able to argue for the removal of certain requirements, and in fact we’ve done so. We do have an approach before the South Korean authorities to review again particular production testing aspects of the protocol that is in place, because we believe with hindsight and experience in the trade that those are now redundant. (trans., p. 491)

Given the complex nature of phytosanitary issues and discussions, the Commission recognises that efforts to secure access to foreign markets may take several years to complete. If communication between BA, HMAC and industry on matters relating to market access is improved, it should be possible to address more effectively issues associated with particular outcomes.

Inspection and certification of exports

Prior to being exported, citrus products must be inspected and certified by AQIS. Certification is a declaration that the conditions for access into foreign markets, including relevant phytosanitary requirements, have been met. In most countries this is a prerequisite for the entry of animal and plant products.

The Quarantine and Exports Advisory Council reviewed the charges imposed by AQIS for their inspection and certification services in 1999 (QEAC 1999). Following this review, a number of changes were introduced in June 2001 to align the charging structure more closely with ‘user pays’ principles, including full cost recovery.

Concerns were raised by some participants about the level of these charges and the cost disadvantages they place on Australian exporters. The AHEA commented that:

Often these charges place Australian citrus exports at a competitive disadvantage to citrus from other country suppliers (subject to similar phytosanitary constraints), bound for the same market. The Australian Horticultural Exporters Association contends that the AQIS charge often exceeds the real cost of service provision and is commercially unsustainable. (sub. 74, p. 3)

In the position paper, the Commission proposed that AQIS, in applying the above cost recovery arrangements, should follow the recommendations of the Commission’s report on the cost recovery arrangements of Commonwealth regulatory, administrative and information agencies (PC 2001a). In particular, it suggested that if AQIS was over-recovering its costs from the citrus industry against the criteria proposed by the Commission, the charging system should be changed to reflect actual costs.

AQIS, in its response to the position paper, said that:

... the new charging structure is consistent with the principles identified in the Commission’s draft report on cost recovery arrangements of Commonwealth regulatory, administrative and information agencies. In order to update the information you have received from the citrus industry, I would also like to add that as from 1 November 2001 AQIS is no longer required to recover 100 per cent of its export costs. The Government’s ‘Stronger Regions’ policy of August 2001 reduced AQIS’s overall charges to industry by 40 per cent. These reduced fees and charges took effect from 1 November 2001. (sub. DR125, p. 1)

The Commission notes that, as it is now Government policy to subsidise export inspection and certification services, participants’ concerns about overcharging by AQIS are without foundation.

7.2 Export control powers

The *Horticulture Marketing and Research and Development Services Act 2000* prohibits exports of ‘regulated horticultural products’ into associated regulated markets unless the person has an export licence and complies with any licensing conditions. HAL administers the export control powers, including issuing and managing licences (see chapter 6).

Licences are granted subject to compliance with conditions outlined in a ‘Corporation Permission’ notice. The conditions can require that exports:

- be made to foreign importers approved by HAL; and/or
- are undertaken subject to specific terms and conditions of trade relating to:
 - the quality of the product, including its colour, shape and size;
 - the packaging and labelling of the product;
 - the form of consignments;
 - the commission and fees charged by exporters; and/or
 - the carriage or insurance, including contracts for carriage or insurance.

Exporters who fail to comply with licence conditions can be fined or have their export licences revoked (HAL, pers. comm., 9 April 2002).

The powers are often used in new markets as a market development tool or in established markets to unify Australia’s supply position (HAL, sub. DR102). They have been implemented by the Government at the industry’s request, primarily in response to concerns about outcomes in some export markets:

The citrus industry sought orderly marketing arrangements in the first place because of the unsatisfactory marketing practices (particularly price undercutting — at growers’ expense) of commercial exporters, particularly in Asian markets. (QFVG, sub. DR127, p. 3)

Licences are currently required for sales of citrus products to four overseas markets — the Republic of Korea, Taiwan, Thailand, and the United States. In 2001, exports of citrus from Australia to these markets represented 13 per cent of the total volume, and 23 per cent of the total value (fob), of citrus exports (ABS unpublished trade data). The majority of these exports (86 per cent by volume and 90 per cent by value) were to the United States (box 7.1) — a market offering high average unit values (mainly for navels) (see chapter 2). Accordingly, most interest was expressed by participants in the US market arrangement.

The licence conditions appoint designated importers in each market — a single importing agent for the United States and a panel of importers for the Republic of Korea, Taiwan and Thailand. Other licence conditions vary between markets — some placing additional restrictions on packaging and labelling and transport and others specifying minimum quality standards. For example, exports to Thailand must meet minimum maturity requirements and be packed according to specific requirements and exporters to Korea must be licensed under the ‘Australia fresh’ scheme and use ‘Australia fresh’ fruit stickers (see appendix D, table D.2).

The licence conditions placed on citrus exporters can also be different from conditions placed on other horticultural exporters subject to export control.

This form of export control is unusual. Export control powers are typically employed by a designated Australian monopoly marketer, rather than by requiring Australian exporters to use designated foreign importers. This is the case, for example, with export marketing of sugar, rice and wheat.

Box 7.1 Exporting citrus to the US market

Export control powers have been applied to citrus exports to the United States since June 1992. These arrangements:

- place restrictions on the source of exports (in line with US marketing orders and quarantine restrictions) — currently only citrus from the Riverland, Sunraysia and Riverina regions may be exported; and
- require the use of a single importing agent, DNE World Fruit Sales Inc. (DNE), a US owned company.

The arrangement with DNE was intended to develop marketing strategies for Australian navels that focus on promoting that fruit as a high-priced premium product — to sell Australian navels at premium prices in return for guaranteeing high quality, consistency of supply and reliability of delivery.

DNE is obliged to handle any volume offered to the United States by any licensed Australian exporter, but access to the market is subject to commercial terms and conditions being successfully negotiated between the Australian exporter and DNE.

Currently, virtually all Australian exports to the United States are conducted through Riversun, an umbrella company that manages and arranges transport, consolidation, packaging and other activities, although this is not a requirement of the export control powers.

At the beginning of the season, DNE and Riversun determine a 'marketable volume' for the US market. This is distributed between exporters in the Riversun group on the basis of past history and past performance (trans., p. 340). Individual exporters retain ownership of fruit, which is supplied on consignment. DNE's commission rate depends on the price DNE achieves in the US market (a higher price results in a higher rate).

Other exporters negotiate commercial terms with DNE in their own right.

Source: AAT (1999); Appendix D; Edmonds (1997).

Export control powers are not applied to sales in a number of significant export markets — notably Hong Kong, Malaysia, Singapore and Japan. In 2001, exports of citrus to these markets represented 71 per cent of the total volume, and 63 per cent of the total value (fob), of citrus exports (ABS unpublished trade data). Exports to these markets typically achieve lower average unit values than exports to the United

States. Between 1997-98 and 2000-01, the average unit value of citrus exports to Malaysia and Singapore was around half that of exports to the United States, and the average unit value of citrus exports to Hong Kong was around 60 per cent of exports to the United States. The exception was exports to Japan — the average unit price of citrus exports between 1997-98 and 2000-01 were much the same as for the United States (see chapter 2).

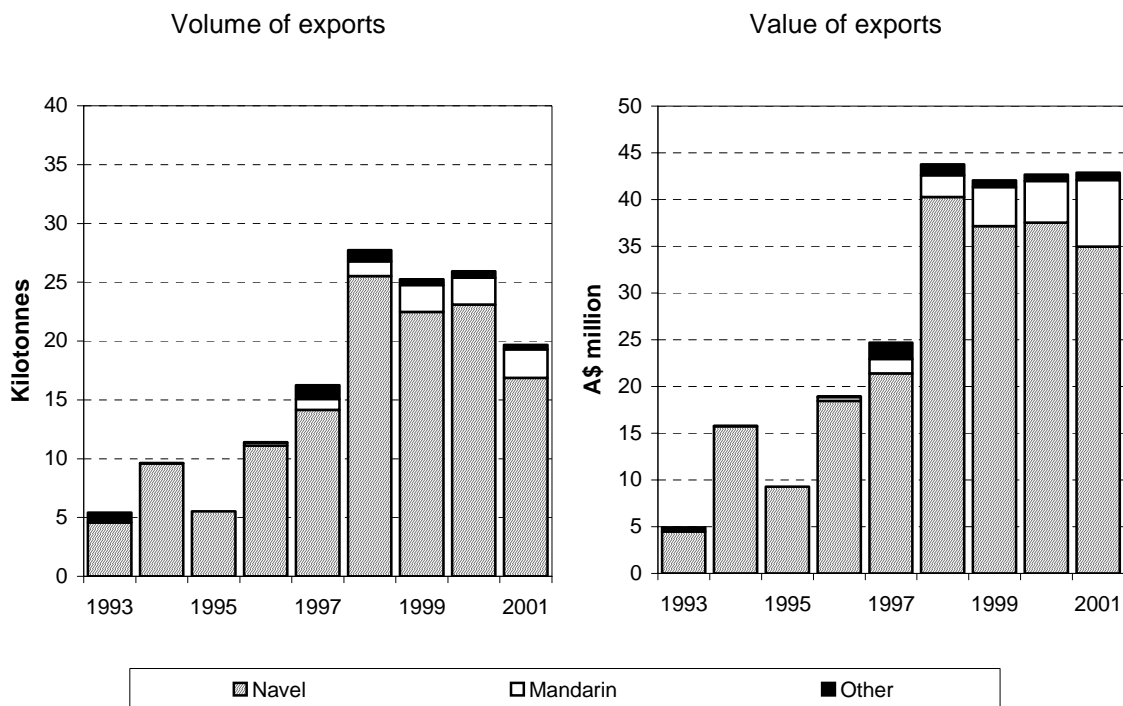
US market

The United States is a significant market for Australian citrus exporters. It provides high returns for premium quality fruit, particularly navel oranges and mandarins:

It's a small window of opportunity, it's a niche market ... that we can target and market our fruit and get a premium on that fruit, and we need that premium. (Jack Papageorgio, trans., p. 418)

In 2001, Australia exported 19 671 tonnes of fresh citrus to the United States at a total value of A\$43 million (figure 7.1). These exports were equivalent to 90 per cent of the value of all citrus exports to the markets subject to export controls. Exports in that year included 16 882 tonnes of navel oranges (A\$35 million (fob)), 2400 tonnes of mandarins (A\$7.1 million (fob)) with the remainder being valencia and other citrus products (ABS unpublished trade data).

Figure 7.1 **Australian exports to the United States (fob), 1993–2001**



Source: ABS unpublished trade data.

The Commission was provided with evidence that the nature of the US market has changed considerably over time and was expected to continue to do so. This is in part a result of the increased competition from other exporting countries, such as South Africa, which often have lower costs of production than Australia:

... there is South African fruit on the market, there's Argentinian fruit on the market, and there's no doubt that the people in South America who have strong commercial ties with the USA [are in the market]. They've invested down there for counter-seasonality, they're closer to the market therefore they would be planting navel oranges. So we could see increased quantities from other countries. (AHEA, trans., p. 457)

Between 1993 and 1998, Australian citrus exports to the United States increased steadily, peaking at 27 736 tonnes (A\$43.8 million (fob)). Between 1998 and 2000, the volume of Australian exports to the United States remained reasonably stable, before falling substantially in 2001. However, the total value of these exports in Australian dollars (fob) was broadly unchanged between 1998 and 2001, supported by the increase in the value of mandarin exports and the weakness of the Australian dollar.

The composition of Australian exports to the United States has changed over time (figure 7.1). Although navel oranges remain the primary export product, the volume (and value) of those exports has fallen since 1998. In contrast, the volume (and value) of mandarin exports has increased significantly — mandarins now account for 12 per cent of the total quantity and 17 per cent of the total value of citrus exports. Australia did not export any lemons to the United States in 2001, but exported small quantities in previous years (ABS unpublished trade data).

Navel oranges

Australia exports navel oranges to the United States when they are out of season in that country (June–October). During this time Australian navels compete with South African oranges and Californian valencias, other citrus products and other summer fruit (including cherries, peaches and plums) (Perez and Pollack 2002).

For many years, Australia was the principal exporter of navel oranges to the US market (both in terms of total volume and total value of exports) (figure 7.2).

South Africa began exporting significant quantities of oranges to the United States in 2000 (figure 7.2).

The increased competition changed the nature of the US market for Australian exporters. For example, Murray Valley Citrus Marketing Board noted:

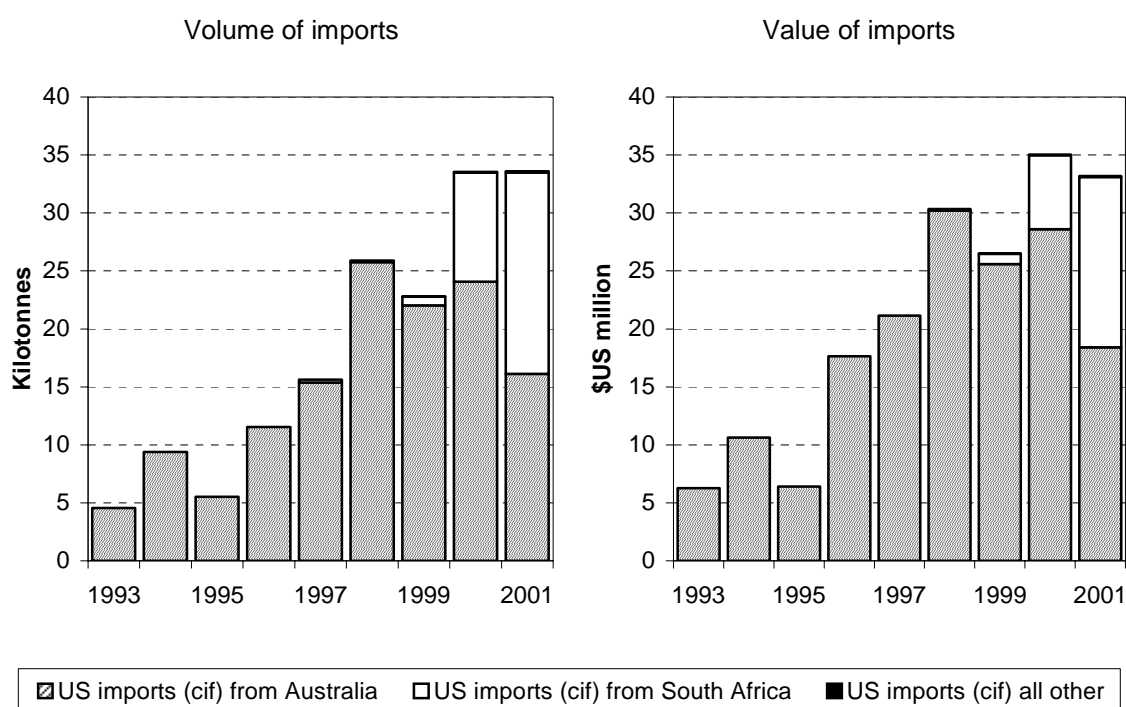
... in the last two years we've had substantial competition from South Africa, and they were not there prior to that ... Whilst we're able to hold our own and compete, it does

have some impact obviously on the volumes that we can move into the market, particularly at the sorts of prices we're looking for. (trans., p. 186)

In terms of prices in the US market, Susan Brighenti stated:

... we all knew that the really high prices may not last forever, because South Africa was coming into the market, some of the American marketers started to go down a bit. (trans., p. 132)

Figure 7.2 US imports of fresh oranges from southern hemisphere countries between June and October (cif), 1993–2001^a



^a Includes US imports from Australia, South Africa, Argentina and New Zealand. Imports from Argentina and New Zealand accounted for less than 1 per cent of the total volume of US imports.

Source: USDA (2002).

Since 2000, Australian orange exports have lost significant market share both in terms of volume and value to South African products (figure 7.2). The significant loss of market share came despite a decrease in the landed price of Australian fruit in the US market in \$US. The unit price of US imports from Australia (cif) fell from \$US1528 per tonne in 1996 (the year prior to South Africa's entry to the market) to \$US1141 per tonne in 2001 (USDA 2002).

Nevertheless, a number of participants predicted strong growth for Australian navel exports into the US market. For example, Riversun stated:

We're looking to increase [our exports] 10 or 20 per cent every year like a balanced growth rather than ... double our exports in one year. (trans., p. 346)

The expected export growth in the premium navel market reflects a view that Australian exporters will:

- increase volumes sent in the existing marketing window — for example, by improving fruit quality; and
- expand the marketing window — for example, by supplying fruit earlier in the season.

In the 2001 season, Australian growers formed a loose alliance with a group representing most South African growers intended, according to Riversun, to exchange information (trans., p. 352). The alliance arrangement covers around 70 per cent of the South African volume destined for the US market but does not require South African exporters to use DNE. In 2001, DNE imported around 22 per cent of total South African exports (DNE World Fruit Sales 2001, slide 111, attachment to sub. DR102).

New opportunities — exporting other citrus products to the United States

Developing the potential product range, production pattern and market structure is an essential ingredient for maintaining Australia's export success with citrus. The Commission is aware that some citrus growers and exporters are looking for new opportunities to increase exports of other citrus products into the US market — mandarins, tangelos, lemons and non-premium oranges.

The United States imports mandarins, primarily from Spain during the US winter, but also in smaller amounts from Australia and South Africa during the US summer season. In 2001, the United States imported 71 327 tonnes of mandarins (\$US89.7 million (cif)) (USDA 2002).

Exports of Australian mandarins to the United States have increased significantly since 1996 (figure 7.1). However, US quarantine requirements presently limit the ability of growers in some regions to take advantage of opportunities in this market — the Queensland fruit fly and citrus black spot are major barriers to Queensland growers wishing to export mandarins to the US market.

The Commission understands that there may also be opportunities to increase exports of tangelos to the US market. For example, grower John Whyte commented:

... the American market opened just as crunch time was going to come for tangelos, and they have been one of the most successful export lines to the United States ... the best grower received \$2200 a tonne for his tangelos exported to the United States ... [we] have gone into full production and we have this situation that the American market last year would have taken a lot more, but we didn't have the fruit ... (trans., pp. 271–272)

The United States imports lemons throughout the year, but mostly in the US summer when local production is characterised by small numbers of poor quality fruit. In 2001, the United States imported 35 854 tonnes of fresh lemons (\$US20.5 million) — most imports were from Argentina, Spain, Chile and the Bahamas (USDA 2002).²

Australia has exported some lemons to the US market, but its share of total US imports has been small and inconsistent (USDA 2002). Yet it may be possible to increase market penetration in the United States. For example, David Tayler stated:

I was asked to source lemons in Australia by a leading American fruit merchant. They have been in the business for more than 35 years and developed a sales history of more than \$US250 million per year to 900 department stores. They wanted up to 200 000 cartons of lemons in 2001. Again they want lemons in 2002.

- They did not want fruit of inferior quality; they were very pleased with the quality of the lemons on display and readily available at Sydney Markets during their visit in September 2001.
- As purchasers of such large quantities, I would expect that they would know their market. (sub. DR131, p. 6)

The Commission notes that growers and exporters can pursue potential opportunities for lemon exports to the United States through DNE, but not at present through other importers.

Some participants suggested that there may be potential opportunities to export non-premium fruit to the US market. For example, Don Centofanti, a Riverina packer and exporter, stated:

We've had other companies coming in from America wanting to do business and they're not so fanatical about just wanting to deal with the supermarkets ... There are five-pound bags they believe they would be able to market, which is a smaller fruit, the 113s. (trans., p. 123)

The significant growth of South African navel orange exports to the United States (which are commonly considered to be inferior to Australian fruit) goes some way in supporting the claim that there is an opportunity to market non-premium fruit in the US market. However, a number of participants suggested that any market opportunities for non-premium navels may not be profitable for high cost Australian growers. For example, the Murray Valley Citrus Marketing Board stated:

... the realities of that market are that it costs something of the order of \$US12 per carton to simply get the fruit landed at the West Coast USA ... The American

² There were imports of Argentine lemons in 2000 (USDA 2002). In September 2001, however, the US Federal Court suspended imports of Argentine fruit into the United States on quarantine grounds (The Produce News 2001a; 2001b).

consumers are certainly attuned to large-size citrus and good quality fruit and any market that there might be for a lower grade of fruit would certainly not attract the sorts of prices that we'd need to show profits, and probably wouldn't even make the cost of landing the fruit there. (trans., p. 179)

Export control arrangements — participants' views

Participants made extensive comments about the desirability and effectiveness of export controls, both in general and specifically in relation to the licence condition requiring Australian citrus exporters to use a single importing agent in the United States. Many, but not all, participants disagreed with the Commission's reservations about the effectiveness of the arrangements for exports to the United States, presented in the position paper, instead suggesting that the arrangements provide significant benefits.

The range of opinions expressed on this matter was vast. On the one hand, for example, the Mid-Murray Citrus Growers Inc. suggested that:

The success of the marketing into the USA has been a catalyst in focusing the growing industry towards export excellence and reliability, not only to the US market but also has had a major influence in Asian markets in raising the expectations of achievable prices. (trans., pp. 208–209)

I am totally convinced that in the event of you having multiple marketers in that market, that within one year we would probably lose that market totally. (trans., p. 533)

On the other hand, BPG International claimed that the arrangements limit substantially the potential benefits available from exporting:

[The US market] receives about 1.5 million cartons of large sized navels. This volume is artificially restricted by a restrictive marketing arrangement that secures 'super' prices at the expense of reasonable volume. The market has a capacity to import more than 15 million cartons over the period of Australian availability. (sub. 40, p. 3)

Benefits

Some participants suggested that existing arrangements are an important part of the industry's market development strategy. For example, the ACG suggested that export controls:

... allow the industry to develop marketing arrangements specific to the circumstances of each market, as a means of enhancing the returns to be extracted from specific markets ... The much higher returns being obtained for uniform high quality fruit in the US market than for similar quality fruit in other markets provides persuasive evidence to growers of the value of the marketing arrangements authorised under the Act. (sub 72, pp. 28–29)

The QFVG noted:

The Queensland citrus industry continues to support the strategic use of export licensing, recognising the enormous benefits delivered to the Australian citrus industry as a whole and appreciating that orderly marketing has been implemented in a manner which has not disturbed long standing commercial relationships in traditional markets. (sub. DR127, p. 3)

Participants often referred to the perceived effectiveness of the arrangements for citrus exports to the United States:

The Australian citrus export program to the US, supported by the export control powers, is regarded as a model of best practice not only by the Australian citrus industry but also by other industries in Australia and internationally.

The success of the US program has been instrumental in underpinning the adjustment of the citrus industry of South Australia, Victoria and New South Wales. It is estimated that an additional \$20 to \$25 million (1999 estimates) is flowing back into these three regions. As well, up to 300 full-time equivalent jobs have been created. (ACG, sub. DR99, p. 4)

The single importer arrangement established for exports to the United States is testimony to the positive impact that can be achieved on industry returns and the flow on effect such a market has in driving industry to implement best practices. CBSA not only strongly supports the retention of current powers but supports initiatives, which enhance the development of 'professionally minded' exporters and integration of the sectors. (CBSA, sub. 78, p. 7)

The current situation of exporting fruit into the United States is EXTREMELY SUCCESSFUL, and ALL efforts must be made to retain the status quo. All new export markets should be treated the same way. ONE importer appointed, and no undercutting of good sound markets by so-called exporters who are poor salespeople. (Louis Sartor, sub. 60, p. 1)

The US program is a classic example of coordinated marketing with a priority focus on quality, and therefore it is a win/win for both producer and consumer. (Griffith and District Citrus Growers, sub. 62, p. 2)

Riversun provided a detailed description of the benefits from single importing agent requirement (sub. DR110). These include:

- facilitation of industry collection of new crop information for development of marketing plans;
- facilitation of the development of shipping programs based on forecast production, timing and marketing plans;
- facilitation of cost-effective shipping arrangements — through the forward contract of refrigerated charter vessels;

-
- facilitation of coordinating supply to the market, providing the marketer with an advantage over the buyer — restricting the ability of US retailers to use their retail power to play Australian exporters off against each other;
 - maximisation of the benefits of promotion through single brand targeting;
 - providing Australian growers with an ability to meet specific industry and customer needs — developing long lines of consistent quality fruit, which contributes to a premium price;
 - allowing prompt uniform industry response to quarantine or other issues affecting market potential; and
 - improved communication with, and recognition by, customers, regulatory authorities and service providers.

Many of the benefits perceived by Riversun were also raised by other participants.

Costs

A number of participants were concerned that existing export control arrangements may be imposing costs on the Australian citrus industry — primarily through the loss of market opportunities and/or the loss of flexibility and choice in marketing and distribution. For example, the AHEA commented that it:

... does not support regulatory arrangements that either limit the number of horticultural exporters that can supply a world market, or the number of importers in a given market that can trade with Australian horticultural exporters. The AHEA believes that Australia can best achieve a world competitive citrus export industry by allowing the supply and demand forces to freely operate and to not attempt to regulate or distort market signals. (sub. 74, p. 2)

BGP International commented:

The extensive regulation through the industry has been largely driven by grower interests with little regard to effective export marketing. As one of the few horticultural levy paying groups, the regulations seem more designed to justify the existence of Horticulture Australia Limited than [to] achieve benefit for the industry. (sub. 40, p. 4)

One concern was that the arrangements provide no alternatives for marketing and distribution. For example, David Tayler commented:

There is a need for a viable alternative supplier into the US to ensure that the market is being serviced to maximise returns for Australian growers. HAL ... claim that there is no other alternative importer in the US. HAL claim that all other importers want to undercut the DNE price. (sub. 67, p. 11)

Another concern related to the limited ability of a single importing agent to identify and pursue effectively every potential opportunity for Australian exports. The AHEA noted:

... the sole marketer cannot possibly have good relationships with every retail organisation in the United States ... there are other companies in the United States that have probably got stronger relationships with some of the chains where DNE [the single importer] isn't as strong. Ultimately, if there are a number of importers ... there are a number of, or increased opportunities for Australia to export its fruit to the USA and do so on a profitable basis. (trans., p. 456)

Matthew Nugan argued:

... one seller can't have a really good relationship with every customer in the US, because simply not every customer in the US is going to want to deal with that one company ... there are several huge packing citrus organisations, importers and exporters, in the US, and while they're forced to buy fruit from one importer I suppose they will, but they won't appreciate it. When they can buy other countries' fruit, as they can now, in that market, and they can buy it off other importers, they will immediately go to their preferred supplier. (trans., p. 74)

Several participants were also concerned about the practice of using only consignment selling in the US markets. For example, Tony Catanzariti stated:

My main point of concern is that ... the only way we would market into America would be to a single operator who happened to be DNE, where in turn DNE ... would only accept fruit from Australia on a consignment basis. (trans., p. 68)

The Commission notes that the export control arrangements place no formal requirement to use consignment selling in the US market — rather, the terms of trade and terms of payment are negotiated between exporters and DNE. That said, the current arrangements preclude sellers who require terms other than a consignment basis, but who cannot reach a commercial agreement with DNE on that basis.

Export control arrangements — the Commission's assessment

The Commission notes that export controls may be appropriate in certain, narrowly-defined circumstances.

- Export controls may be appropriate when Australian producers have an opportunity to extract higher prices in export markets in which they have some degree of market power (IC 1993; Gropp, Hallam and Manion 2000). This could occur in markets where Australian products are insulated from rival competition, perhaps because of enduring transport, seasonal or quarantine advantages. In

these cases, coordinating export sales may provide a means to capture any benefits from market power.

- Export controls may also be appropriate when an importing country restricts Australian growers' access to its market (by imposing a quota) resulting in prices above the prevailing world price (IC 1993; Gropp, Hallam and Manion 2000). In these cases, coordinating export sales may provide a means for Australian growers to capture the higher prices (quota rents).

However, these circumstances are generally not relevant to Australian citrus export markets.

The use of export licences to exploit quotas appears to be less relevant now than in the past, given the limited use of import quotas by other countries:

With the removal of quotas in Taiwan from January 1st [2002] there are now no quota barriers in any of our main export markets. (BGP International, sub. 40, p. 2)

In addition, there are very few, if any, citrus markets around the world where Australia is likely to have significant market power, particularly with the real threat of competition from other southern hemisphere suppliers. Australian exporters are usually 'price takers' in these markets.

Australian citrus exporters may be able to influence export prices (be 'price makers') in particular, narrowly-defined, markets. However, any market power is likely to be short-lived as Australian exporters face increasing competition from rival suppliers in other countries. For example, until recently, Australian growers were the dominant exporters of navel oranges into the US market in the US summer season. Even then, they were subject to competition from summer fruit in that market. Now, however, growers from other southern hemisphere countries (primarily South Africa) have entered the US market (figure 7.2). As competition increases, Australian growers are less likely to be able to continue to influence export prices. As a result, export control is likely to be less effective as a means of maximising returns to growers.

Even in markets where Australian citrus exporters are 'price makers', using formal export control powers may not always be the best way to increase growers' returns in export markets. This is because alternative arrangements (including voluntary coordination of supply) may provide equivalent benefits at potentially lower costs. In these cases, it is important to identify and assess all viable options for achieving desired outcomes, with a view to choosing the alternative that returns the greatest net benefits.

If formal export powers are to be used in markets where Australian exporters have market power, the terms and conditions placed on exports will have an important

effect on how any increased returns are distributed between growers, exporters and buyers. For example, when exporters are required to use a single importing agent (as is the case in the United States) any market premiums are likely to be shared with the importer — rather than captured entirely by Australian growers and exporters. In contrast, exploiting any market power by limiting the number of export licences issued (rather than designating an importer) is more likely to maximise the gains to Australia.

FINDING 7.1

The use of export control powers may be appropriate in certain, narrowly-defined circumstances. However, these circumstances do not appear relevant to Australian citrus export markets.

Assessing the benefits and costs — the US market

The Commission considers that many of the benefits attributed to the present export control arrangement are not directly related to its use in the US market. In addition, the Commission notes that alternatives to export control arrangements can often achieve similar benefits.

The major benefit attributed to export control appears to be improving the coordination and marketing of produce (to prevent market surpluses that lead to large price cuts in order to clear stock). The Australian Citrus Industry Council Inc. supported this view — it suggested that the growth and development of the US market:

... would not have been possible without the single importing agent arrangement, which has enabled the effective control of the distribution of the Australian oranges to strategic market areas of the USA. (sub. DR105, p. 2)

The Commission accepts that a single importing agent for Australian exports may have assisted in coordinating the supply of Australian navel to the US market, but notes that the single importing agent has limited control over the supply of oranges competing with Australian exports. As the Matthew Nugan stated:

Whether we like it or not, if you have a single desk it doesn't control the world supply situation. It doesn't control how much fruit is on the market. It doesn't control how much fruit is left over from the previous season in that particular country. In any market in the world, if you've got an over-supply of fruit on a flat market you've got problems. (trans., p. 73)

In addition, other factors, such as crop size and fruit quality and the existence of profitable opportunities in other markets, appear to have a greater influence on the export quantities supplied into the US market. For example, evidence presented to

the Commission suggests that, in recent years, Australian exporters have not supplied enough fruit of appropriate quality to meet agreed volume targets under the US arrangement:

The market demand could not be satisfied in 1999 and volumes were reduced due to a light crop and fruit availability. Volume targets determined for 2000 and 2001 were not achieved either, due to a reduced crop and lack of availability of fruit of the quality standard required by the US market. The 2000 season in particular was marred by losses from an exceptional amount of fruit predisposed to rind breakdown and spoiling, which only became apparent after arrival in the market. (Riversun, sub. DR110, p. 12)

Another benefit often attributed to the single importing agent arrangement is that it allows Australian exporters to take better advantage of transport or seasonal advantages. Yet these intrinsic advantages exist independently of actions taken by Australian growers and exporters.

In some circumstances, using a single importing agent may provide potential benefits — for example, by streamlining the distribution chain. In these cases, a key question is whether *requiring* Australian exporters to use a single importing agent provides Australian growers and exporters with additional benefits over those available to them when they have an opportunity to choose with whom they deal. If the designated importer is delivering value to exporters and growers, then its services would be likely to be used voluntarily.

It is not clear that requiring Australian exporters to use a single importing agent provides Australian exporters with any greater ability to meet specific industry and customer needs. Indeed, requiring Australian exporters to use a single importing agent has the potential to limit their ability to meet consumer needs. As noted above, it may be difficult for a single importing agent to develop effective relationships with all potential customers. Consequently, the relationship between Australian exporters and their ultimate customers may be compromised.

The returns from specialised marketing services and achieving economies of production and distribution (including consistency of supply and reliability of delivery) also appear to be independent of a requirement that Australian exporters use a single importing agent.

Rather, these benefits appear to stem from increased coordination and pooling, and could potentially be achieved through mandated or voluntary coordinated arrangements within Australia, as is the case for exports of certain other agricultural products.

Several participants suggested, however, that the industry is too fragmented to work collectively:

... There have been attempts to try to coordinate them, put some discipline into the marketing of citrus. In my experience in the industry, it hasn't succeeded simply because of lack of support by a big enough critical mass. You might get a group of people that want to do it, but because they're acting in isolation to some extent from a large proportion of the industry outside that group, it doesn't work. (Murray Valley Citrus Marketing Board, trans., pp. 184–185)

Traditionally the horticultural industry has shown little propensity to cooperate in exporting produce to maximise industry returns ... In general the industry has to evolve considerably before cooperation is common across a range of horticultural products. In the meantime other mechanisms need to be invoked. (Minister for Agriculture, Forestry and Fisheries (Western Australia), sub. DR133, p. 1)

The extent of this problem can be overstated. In terms of exports to the US market, those who would need to reach a voluntary coordinated arrangement are exporters, as distinct from growers. The number of exporters selling citrus to the United States is much less than the number of citrus growers. Moreover, the Commission understands that the great bulk of Australia's citrus exports to that market are handled by relatively few, large exporters.

Indeed, the development, and apparent success, of Riversun demonstrates that the industry can successfully undertake voluntary, cooperative action to develop consistent supply programs (which increases flexibility for both growers and customers).

Successful initiatives involving voluntary marketing arrangements can be observed in other horticultural and agricultural industries. For example, the Commission was provided with evidence of the apparent success of a voluntary cooperative approach to coordinating the marketing of stone fruit (Riverland Development Corporation, sub. DR129). The approach is similar to the Riversun model — a number of large growers and packers voluntarily formed a marketing company (Quality Fruit Marketing Company) to coordinate supply.

The Commission is also aware of a voluntary scheme established for the export of Pink Lady apples. Growers, packers and exporters who choose to join the scheme undertake to cooperate in shipping arrangements, fund promotion and implement quality standards (Minister for Agriculture, Forestry and Fisheries (Western Australia), sub. DR 133, p. 1). Under this arrangement, the vast majority of exports of Pink Lady apples to the United Kingdom are coordinated by a single company (the Australian Fresh Fruit Company). For a number of years, Australian exports to the United Kingdom were made through a single UK importer. More recently, a panel of importers has been used, reflecting changes in the UK market and, in

particular, the growth in the use of ‘category managers’ by large retail chains. This arrangement is currently under review. It is interesting to note that the current arrangement focuses on a single variety of apple, not apples as a whole.

Successful branding and quality assurance strategies can also be developed and used voluntarily. This is because exporters with ongoing interests in the market have the incentive, and the opportunity, to develop trust with importers — their own brand names and trading history, become their guarantee of quality. The successful export of Australian citrus (and other agricultural products) into Asian markets demonstrates how voluntary branding strategies can be effectively utilised.

FINDING 7.2

Many of the benefits attributed to export control could be achieved through other means, including voluntary cooperative action by exporters.

The existing arrangement relies on the ability of the single importing agent to identify and pursue effectively all potential opportunities for Australian exports — which requires the agent to have a greater knowledge of market opportunities than would a range of importers.

DNE (and its appointed sub-agent, David Oppenheimer Group) distribute to a large number of stores that are willing to accept a premium quality product at a premium price. Several participants noted that DNE is the ‘category manager’ for citrus products in large supermarket chains and also supplies local distributors that provide other retailers with Australian citrus fruit.

HAL stated:

Retail consolidation in the US has resulted in the number of ‘banner’ stores per chain increasing significantly over the recent past ... [DNE] acts as the category manager for the product [and] directly services:

- 100 per cent of the 7 retail chains that represent approximately 9838 stores with each retailer possessing 700 or more stores.
- 90 per cent of the 6 retail chains that represent approximately 3049 stores with each retailer possessing 300 to 700 stores.
- 75 per cent of the 27 retail chains that represent approximately 4535 stores with each retailer possessing 100 to 299 stores.
- 60 per cent of the 15 retail chains that represent approximately 1167 stores with each retailer possessing 50 to 99 stores.

... it is important to note that the nominated importer also supplies local distributors that provide other retailers with Australian citrus fruits. (sub. DR102, p. 11)

Even so, it is clear that DNE does not have universal coverage of US outlets. Indeed, as noted above, it is difficult to see how a single agent can maintain effective relationships with all potential customers. This suggests that marketing fruit through a number of diverse importers would lead to the wider exploitation of market opportunities.

A problem could also arise if the importer's objectives are out of line with actions in the best interests of Australian exporters — the importer may thwart potential export opportunities that may be profitable for growers, but not advantageous for itself. In this context, it is relevant to note that DNE also markets fruit from countries that compete with Australian exports — US fruit and southern hemisphere imports. David Tayler stated:

The Australian industry has essentially put its export business into the US into the hands of DNE. DNE, an American company, controls the import of citrus into the US from Australia. (sub. 67, p. 5)

Does DNE stand for Australian fruit or does it stand for South African navels? ... Does DNE stand for Australian lemons or does DNE stand for Argentinian lemons? Why would we put a company in a monopolistic situation when it does not put us in the same sort of situation? (trans., p. 89)

HAL has noted that its arrangement with DNE would be terminated in the event of evidence that DNE was not acting in the best interests of Australian citrus growers and exporters. Nonetheless, the potential for conflicts of interest reinforces the importance of putting in place effective performance incentives to ensure that DNE provides the best possible service.

Against this background, and after due consideration of the evidence presented, the Commission maintains its view that a single importing agent arrangement can result in missed sales and opportunities. Consequently, it concludes that the marketing of fruit through a number of importers could lead to more extensive development of export revenue from the US citrus market.

FINDING 7.3

Restrictive export controls may be impeding the development of markets for Australian citrus products — imposing costs on the industry, primarily through the loss of market opportunities and flexibility to meet changing market demands.

Export control arrangements for citrus products sold into the United States are likely to limit the opportunities available for some Australian exporters.

Processes for performance assessment and review

Careful performance assessment and review of export control arrangements is critical in ensuring that they provide benefits to Australian citrus growers and exporters now, and remain relevant to the market in future. A key question is whether export control powers generate *additional* benefits, beyond those achievable through alternative arrangements including voluntary cooperation, or well-informed growers and exporters making commercial business decisions.

Past reviews

HAL provided a summary of the major reviews of the use of export control powers (including any modifications to the powers) since 1982. These include in-market reviews undertaken by the former Australian Horticultural Corporation (and more recently by HAL), an Administrative Appeal Tribunal hearing, a National Competition Policy review conducted by PricewaterhouseCoopers in 1999 and the Regulation Impact Statement (RIS) prepared on the transfer of export control powers to HAL (sub. DR102).

Several participants expressed concern that the Commission has raised questions about the desirability of the use of exports controls in its position paper. They argued that relatively recent assessments and reviews had satisfactorily demonstrated the effectiveness of the use of export controls for particular markets — and especially for the US market. For example, the Mid-Murray Citrus Growers Inc. commented:

It is incomprehensible and unacceptable that the Commission has focused on the export control powers administered by Horticulture Australia Limited as to whether the export powers deliver net public and industry benefit ... They have been rigorously reviewed at AAT hearings in 1999 and more recently with the formation of Horticulture Australia Limited in a RIS process. These two processes clearly documented net public and industry benefit. (trans., p. 208)

Likewise, HAL commented:

Horticulture Australia is a company that started just a year ago. A very, very significant Government review process in association with the industry led up to the formation of the company. One key part of the Government decision, which had external or independent Government review at the time, was the transfer of the export control powers across to Horticulture Australia. (trans., pp. 223–224)

Nevertheless, the Commission notes that a number of concerns have consistently been raised, both by participants in this inquiry and in other forums, regarding the adequacy of these reviews and their usefulness in policy making. A primary concern has been that the reviews did not adequately demonstrate that export control powers

have been effective in achieving their stated objectives and/or that alternatives may not be more effective.

For instance, in relation to the RIS prepared on the transfer of export control powers to HAL, the Office of Regulation Review noted:

For matters such as a single desk restriction on exports, the adequacy of the RIS is assessed against the criteria in the [Competition Principles Agreement], and must demonstrate a clear net benefit to the community and that the stated objectives can only be achieved through maintaining a restriction on competition. Although a RIS was prepared, it was assessed as inadequate by the [Office of Regulation Review] at the decision-making and tabling stages. (PC 2001b, p. 20)

A further concern related to the perceived lack of consultation and limited transparency in the conduct of review. The Commission was provided with some evidence that some interested parties have attempted to exclude other groups from participating in the development and review of the marketing arrangements (for example, AHEA (trans., p. 455 and sub. DR116); Tony Catanzariti (trans., p. 72)). The Commission notes, however, that other participants suggested that previous reviews had used effective consultation and had been conducted in an open transparent manner — for example, with interested parties able to contribute by responding to a questionnaire mailed to all registered growers, packers and exporters (HAL, attachment to sub. DR102).

Future reviews

The Memorandum of Understanding and the Deed of Agreement underpinning the creation of HAL provide a number of checks and balances for continual assessment and periodic review of the effectiveness of the use of export controls in terms of generating ‘net public benefits’. These include:

- annual market performance assessments undertaken by HAL (in consultation with industry); and
- three year ‘continuance’ reviews conducted by HAL and the Department of Agriculture, Fisheries and Forestry — Australia (AFFA) (in consultation with industry) using a RIS process (box 7.2).

It is also expected that the legislation itself will be subject to review against National Competition Policy principles every ten years (AGS 2000).

HAL also undertakes in-market evaluations and has implementation groups (with representatives from the growing, packing and exporting sectors of the industry) and ‘product champions’ who monitor the use of control powers in the market (trans., p. 237; attachment to sub. DR102).

Box 7.2 Performance assessment and review arrangements

The agreed framework for performance review of export control powers administered by HAL is outlined in the Memorandum of Understanding and the Deed of Agreement underpinning the creation of HAL.

The framework provides for an annual performance assessment and a three year review of the operation of the use of export control powers.

- The **annual performance review** will focus on how effectively the export control arrangement is working from year to year — it assesses performance against the targets and performance goals contained in the business/marketing plan for the use of the arrangement. HAL will conduct the annual performance assessment, in consultation with the industry sectors using the arrangement. HAL is to provide a copy of the report to AFFA, and may recommend minor changes based on its findings. The annual review is to be publicly available.
- After an export control power has been used in a specific market for three seasons, a **three year review** should be undertaken. The review should be prepared under National Competition Policy guidelines — the focus is to be on assessing whether the use of the powers provides net public benefits and whether retention of the power is necessary to achieve continued benefits. The review will be conducted by HAL and AFFA in consultation with all key interested groups. The outcome of the three year review is to be provided to the Secretary of AFFA, with a recommendation of continuance, modification or revocation. It is not required to be publicly available.

Source: AGS (2000); Corrs Chamber Westgarth (2000).

In some cases, information is provided directly to growers, packers and exporters regarding the outcomes in markets where export controls are used. For example, before and after each season, growers, packers and exporters can attend regional meetings held in all major growing areas to review the performance of the US arrangements, including price points achieved and promotional programs instituted (HAL, attachment to sub. DR102).

Parties can also challenge the conditions of specific export controls in the Administrative Appeals Tribunal (for example, AAT 1999).

The proposed performance assessment and review framework has support from industry:

There is an approved regulatory regime and review process for the export control powers ... The growing industry is comfortable with this review process and believes that it provides sufficient public interest safeguards to ensure that the powers are not misused. (ACG, sub. 72, p. 29)

The industry has accepted the review process as a satisfactory mechanism to protect the interests of the public and the industry. (Australian Citrus Industry Council Inc., sub. DR105, p. 1)

While the CBSA supports a process of review to ensure that marketing powers provide definite benefits to the citrus industry, the CBSA believes that systems already established by HAL to provide an ongoing review process are both sufficient for industry and provide adequate public interest safeguards to ensure powers are not misused. (CBSA, sub. DR130, p. 5)

The Commission notes that, while reviews of the existing arrangements are to be conducted in the future, HAL is able to administer export controls put in place before it was created for a period of up to two years without undertaking a net public benefit test (Corrs Chambers Westgarth 2000). HAL is currently in discussion with AFFA regarding the proposed conduct of future annual and three year reviews (attachment to sub. DR102).

Assessment of the review process

The Commission emphasises the importance of comprehensive assessment of the benefits and costs of export control arrangements — both in terms of assessing the desirability of retaining or changing restrictive exporting arrangements and in terms of the future implementation of export control powers. A comprehensive assessment provides the basis for well-informed decision making. It also provides readily accessible evidence to support a decision to maintain, change or remove particular export controls.

This is especially important in the context of export controls applied to Australian citrus products, given the divergent views about the effectiveness of the arrangements and about the desirability of maintaining them.

According to the Deed of Agreement between HAL and the Commonwealth, three year reviews should be prepared under National Competition Policy guidelines (AGS 2000). This means that export control arrangements should be retained only if:

- the benefits to the community as a whole outweigh the costs (there are ‘net benefits’); and
- the benefits can be achieved only by using export control.

What are the alternatives?

An important feature of a systematic assessment of the use of export control powers in specific markets is consideration of the alternative methods and options that may also contribute to improving market outcomes. For example, alternatives to the requirement of single importing agent for exports to the US market might include requiring Australian exporters to use a panel of approved importers (as is the case for exports to Thailand, Taiwan and Korea) or placing no formal requirements on exporters and instead having a voluntary coordinated export marketing arrangement. Alternatives to specifying quality standards and marketing regimes might include voluntary branding initiatives and industry-based quality assurance programs.

Do the benefits outweigh the costs?

A comprehensive assessment should analyse the benefits and costs of particular arrangements (and alternatives), both for different groups within the industry (box 7.3), for the industry as a whole and for the broader community.

Box 7.3 Export control powers — effects on exporters and growers

Factors which affect exporters and growers that might be considered in a net benefits analysis of an export control arrangement include, but are not limited to:

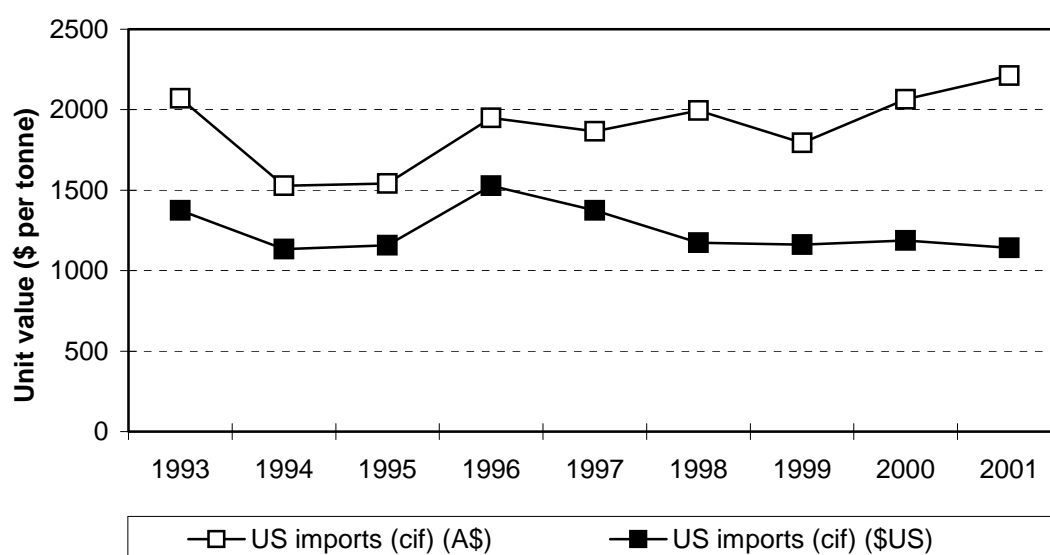
- its potential effect on the export market, including whether it:
 - influences export performance and returns in that market — for example, by extracting higher prices or increasing the volume supplied;
 - provides additional benefits from brand and quality management;
 - provides additional benefits by capturing a market timing advantage — for example, by restricting export quantities to increase returns;
 - increases access to market information — for example, by increasing the accuracy and speed of information transfer between growers, exporters, importers, customers and regulatory authorities; and
 - provides additional cost savings — for example, reducing costs by pooling supply or realising synergies in distribution and promotion that would not be achievable in other ways;
- its potential effects on other (export and domestic) markets, including whether it:
 - influences supply to other markets — for example, when the consequences of decisions in one market have flow-on effects in other markets; and
- its potential effects on grower and exporter investment decisions — for example, in terms of unduly distorting the flow of resources into particular markets.

There are many factors that could be considered in making a net benefit judgment about the effectiveness of export control arrangements (and alternatives). These are not confined to the financial or economic outcomes of those currently participating in the export market, but also include the effects on potential exporters and on domestic producers. Judgments should also consider the effects of arrangements on the community (including regional development).

Care must be taken to ensure that the benefits and costs attributed to a particular arrangement are directly related to the use of it. Many of the benefits are essentially unrelated to the use of the powers and could be captured by Australian growers regardless of the type of licence conditions put in place (see above).

Likewise it is important not to overestimate the influence of export control on improving export market outcomes since changes in export returns could reflect other factors, notably changes in the exchange rate. For example, the increase in the A\$ unit value of Australian imports to the United States observed between 1996 and 2001 is explained entirely by exchange rate effects — even though the \$US unit value of Australian orange imports to the United States fell by 25 per cent between 1996 and 2001, the A\$ unit value increased by 13 per cent over the period (figure 7.3).

Figure 7.3 **Unit values for Australian orange exports to the United States, 1993–2001^a**



^a The unit prices of US imports of Australian oranges (cif) have been converted from \$US to A\$ using published RBA exchange rate information.

Source: Commission estimates based on USDA (2002); RBA (2001b).

A grower, John Whyte, noted that exchange rates were the ‘key factor’ influencing success of Australia’s exports (sub. 37, p. 1). Similarly, David Tayler noted:

Go and look at the foreign exchange. Our dollar compared with the United States dollar has fallen 30 per cent over the last 10 years. We’ve gone down — we’ve been up a little bit but we’ve come from an average of 75 cents in 1992 and we’re down to about an average of 51 last year ... our American prices have gone up and the industry is trying to tell me that that’s because of DNE, but I will tell you that it is the foreign exchange [rate]. (trans., p. 88)

The Commission also notes that alternatives to export control arrangements can often achieve similar benefits. For example, voluntary coordination of supply can facilitate the development of efficient supply chains and allow the industry to meet specific industry and customer needs. Successful branding and quality assurance strategies can also be developed and used voluntarily.

Where possible, quantitative measures of benefits and costs should be identified and compared. In addition, judgments must be made regarding factors bearing on the public interest that cannot be easily quantified (such as social impacts). Where quantitative data are unavailable, a qualitative assessment of the benefits and costs should be undertaken.³

It may be particularly difficult to quantify or value the benefits and costs of alternatives to existing export control arrangements, since no true market test is presently possible. In particular, the use of export control for the US market coincided with the Australian entry to the market. For example, HAL noted that, in terms of assessing the potential benefits and costs of export control arrangements of sales to the US market:

We can only theorise on the answer ... because we don’t have the empirics to stand behind it. (trans., p. 232)

This raises the risk that established, yet sometimes unfounded, ‘rules of thumb’ become influential in decision-making — often entrenching the status quo at the expense of adopting alternatives which may be more effective or provide greater benefits. However, attempts to put values on all benefits and costs of alternatives can sometimes involve false precision that can also unduly influence the decision-making process. Clearly good judgment is required in these circumstances. The conduct of the review can also play a role (see below).

³ However, the Commission notes that in some circumstances a comprehensive qualitative assessment may be more appropriate. For example, if it is clear on an initial examination that a particular option provides an outcome obviously superior to the alternative, a more detailed quantitative analysis may not warrant the additional time and expense.

One possible way to test the relative effectiveness of existing arrangements may be to trial alternatives — say, in different product markets. However, particular care would need to be taken in setting up any market trial, since its conduct would have important effects in terms of gaining insights into the effects of different arrangements and on long-term relationships between Australian exporters and importers in overseas markets.

The operation and effectiveness of alternative arrangements used in other similar markets (including those for other horticultural products) may also provide insights into the potential viability and effectiveness of alternatives to existing arrangements. Again care would be needed to ensure that valid comparisons are made, particularly given the different buying behaviour and trade processes in different markets.

A comprehensive analysis should consider the effects on those directly and indirectly affected by the arrangement (and its alternatives). In the case of citrus exports, groups potentially affected by the arrangement might include:

- exporters, and growers producing export quality fruit, who export product to that market; and
- exporters and growers who do not currently export to that market but who may do so in the future.

Careful attention should be given to the distributional effects of a particular arrangement (determining who ‘wins’ and who ‘loses’). For example, adhering to strict quality standards, to meet US marketing orders and strong US consumer preferences for high quality fruit, has clearly assisted in the development of the premium export market for Australian navels, and more recently mandarins. As a result, some growers have achieved and maintained high price points for premium quality fruit. However, this may have been achieved at the expense of the untapped potential market for non-premium fruit or for other citrus products.

Attention should be given to the direct impact of arrangements in the export market, but also in related export markets. A number of participants pointed to the high price points achieved for premium navel exports in the US market. However, it is not clear that targeting high price points in particular markets will guarantee high returns for growers. The AHEA noted these links in relation to fruit of different sizes and qualities:

It is very difficult to just look at one single trade, the US market, and say, ‘The return out of that is this.’ You’ve got to look at where the crop was marketed for that season, because when we pack fruit what do you do with the small fruit? What do you do with the sizes that America doesn’t want? For many of the large exporters involved in the American program that small fruit has to be put into South-East Asia at very low prices, because they’ve got to keep it moving, the smaller fruit. So you’ve got to look at

the returns that they could have achieved out of Asia and balance that with the returns that they're achieving in America, so it's not just America per se. (trans., pp. 451–452)

The price-quantity combinations that maximise overall returns to Australian growers, having regard to the costs of selling to different markets, reflect the supply and demand conditions in other export markets as well as those in the 'premium' US market.

Identifying all of the relevant benefits and costs and assessing any trade-offs is particularly important when arrangements are likely to affect different parts of the industry, or the broader community, in different ways. A critical issue is the extent to which the interests of particular groups should be traded off against the interests of the broader industry, or indeed, the interests of the community. The Commission notes the strong, and often diverse, views about the effectiveness of export control arrangements, especially the existing US arrangement. This reinforces the importance of effective consultation, independence and transparency (see below).

FINDING 7.4

A key question is whether export control arrangements generate additional benefits for Australian growers in general, beyond those achievable by other means — such as multiple import agents, voluntary cooperation, or well informed growers and exporters making commercial business decisions.

Conduct of reviews — independence, transparency and consultation

It is most important that reviews are conducted in an independent and transparent manner, and that reasons are provided for any decisions to retain or change any restrictive export control arrangements.

Independent and transparent processes help to build confidence in the integrity and effectiveness of a review, and to avoid any perceived potential conflicts of interest. They can also play a pivotal role in promoting public awareness of any trade-offs between different approaches, and consequently increase the prospects of industry and community acceptance of findings and recommendations.

The Commission notes that poorly conducted reviews neither assist the perception of the effectiveness of review, nor enhance the prospects of achieving beneficial change. Indeed, such reviews often create an environment conducive to maintaining existing arrangements, as those who are currently benefiting from them attempt to prevent change to preserve their vested interests.

The Commission has consistently emphasised the benefits of independent processes — when the review body is independent from parties with vested interest in the

outcome it has appropriate freedom to make recommendations consistent with the interests of the community as a whole. The requirement for independence is especially important when the reviews consider complex or contentious issues.

The Commission considers that HAL could not be regarded as a suitably independent body to conduct reviews, for two important reasons:

- first, HAL administers the export control powers, which raises the risk that it may tend to favour outcomes that maintain or expand its role; and
- second, HAL is an industry-owned company, with peak grower bodies as its shareholders, which could raise perceptions (at least) that it may tend to favour grower interests over the interests of others.

It is a well established principle that those who develop policy should be different from those who administer it.

HAL has made a commitment to conducting reviews with transparency and effective consultation:

... what will happen is certainly again a very transparent and open review process, with all sectors of industry providing input and guidance to Horticulture Australia, who is the referee-cum-umpire in this process ... we can certainly reflect industry's views and the commercial trading patterns that have taken place to benefit the Australian citrus industry. (trans., pp. 238–239)

Even so, if HAL was to be a member of a review body, there could well be doubts about the impartiality of reviews. Indeed, an ongoing perception of bias remains. For example, the AHEA noted:

The review committee is always dominated not by the commercial players but by the growing packer fraternity and there obviously won't be any change in the arrangement this year. (trans., p. 460)

Likewise, BGP International stated:

... reviews of the marketing arrangements have been done by what I consider to be basically in-house with a very closed structure ... if the single desk for US or any other arrangement ... is to be considered, it should be reviewed and it should be reviewed independently. That would be almost outside the structure of HAL. (trans., p. 503)

While the Commission emphasises that an independent review is fundamental to the integrity of the review process, this does not mean that growers, their representatives and HAL should have no input to reviews. They would be able, like others with an interest in the arrangement under review, to present information, evidence and opinions to the independent review panel.

Ensuring transparent processes is also important. Transparency requires that the review body seeks widespread input to its deliberations — ensuring that all relevant evidence is brought to bear and that different points of view are open to public scrutiny and comment. Transparency also involves publication of reasons for recommendations — explaining, for example, why the use of a particular arrangement should be maintained, changed or removed.

RECOMMENDATION 7.4

Export controls should only be used in those markets where independent reviews can demonstrate, on the basis of clear criteria, that such powers generate benefits which exceed the costs and which cannot be achieved without the powers.

RECOMMENDATION 7.5

Future reviews of export control arrangements should be conducted in an independent and transparent manner, including effective consultation with all interested parties. Assessment criteria and the results of the review should be publicly available, together with the reasons for recommendations.

8 Potential impediments in domestic markets

Participants identified a number of potential impediments that are adversely affecting the performance or competitiveness of the citrus industry, or impeding industry adjustment. This chapter considers concerns raised by participants about specific barriers in domestic markets. These include:

- labelling practices that mislead consumers about the content of some products, especially fruit juices;
- restricted access to some key inputs and/or large increases in input costs; and
- perceived imbalances in negotiating power along the supply chain, favouring large processors and the large retail chains at the expense of growers.

8.1 Labelling laws

Citrus growers, processing companies, wholesalers and retailers often use advertising and promotional campaigns to differentiate their products from those of their competitors, to provide a marketing edge.

The Australian Citrus Growers Inc. (ACG) said the growing industry believes that:

... promotion of its 100 per cent fresh juice product against the alternative juice product made from reconstituted concentrate will give it a competitive advantage against imports. But for this to be effective labelling laws must convey clearly to consumers the distinction between products. (sub. 72, p. 34)

Berri Limited noted that its marketing activities have been:

... geared to convert consumers to fresh juice from other juice products and substitute beverages. Activities have included a \$15m investment in advertising (along with other promotional activities) to build segment and brand equity. (sub. 80, p. 9)

These campaigns can include labels on the packaging, or the product itself, that suggest that the product has certain desirable characteristics — for example, being a particular variety of fruit, or being ‘fresh’ (rather than reconstituted) orange juice, or being made from Australian (rather than imported) ingredients.

Product advertising, catalogues and retail shelf displays reinforce messages about particular product characteristics and qualities.

Firms often have strong commercial and legal incentives to make accurate and reliable claims about their products — although this might not always be the case. Indeed, a number of participants considered that existing Australian laws covering the labelling of citrus products are inadequate, allowing some producers to mislead consumers deliberately about the content of certain products — particularly suggesting that they are made only from Australian ingredients when that might not be the case.

The Murray Valley Citrus Marketing Board suggested that there are:

... numerous products still on retail shelves which are misleading or at best ambiguous in the brand name, country of origin and/or content descriptions. Considerable weight of anecdotal evidence clearly indicates that consumers intending to purchase Australian grown orange juice are being misled into unwittingly compromising their purchase intentions. (sub. 75, p. 17)

Whilst there have been some changes recently to tighten things up in terms of country of origin statements and content issues, to us the labelling requirements are still far from clear in terms of reconstituted products as opposed to fresh-style products and also the country of origin ... they're still getting away with misleading statements on labels. (trans., p. 205)

Along similar lines, the ACG noted:

An abundance of labelling, claims, symbols and logos makes it difficult to identify true blue Aussie products. Our labelling laws are complex with many loopholes, and it's too easy for manufacturers and distributors to mislead consumers about the origin of their products. (trans., p. 158)

... new laws clearly set out the tests that a product must pass to qualify for country of origin status. The ACCC [Australian Competition and Consumer Commission] has determined that the reconstitution of imported concentrated fruit juice into fruit juice for sale can not be labelled as Australian product. ... [However] these labelling requirements are not being complied with in the market place. There are many examples of non-compliant product labels. This applies also to country of origin labelling of fresh fruit, where many retailers do not comply or comply incorrectly. (sub. 72, p. 34)

Riverina Citrus commented that:

Labelling is a major impediment in our point of sale. Labelling laws are unclear, do not determine the country of origin [and] do not identify the fresh aspect of the product ... (sub. DR115, p. 21)

It also stated:

... requirements in relation to labelling are not necessarily being complied with in the market place nor do we believe that the laws are strong enough nor policed to assist consumers with easily identifying ‘real’ Australian made products incorporating Australian grown fruit. Penalties for those not complying are not high enough. (Riverina Citrus, sub. 45, p. 4)

A number of growers indicated their dissatisfaction with existing arrangements. For example, Carol Davidson suggested that:

Juice sold in Australia needs/must have better labelling laws, we must now farm to best practice so labelling laws must comply. Tell the consumer what percentage of juice they have in their product plus a true indication of all the ingredients. We want juice to be ‘pure fresh Australian juice’ not a concoction of ‘belly wash’. (sub. 50, p. 3)

Carol Davidson also provided several examples of labels that were considered to be potentially misleading. For example, the claim on one label of being ‘Fresh Orange Juice’ was considered misleading since the ingredients included ‘Fresh Orange Juice, seasonally adjusted with Australian and imported A grade reconstituted orange juice concentrate’ (sub. 50, p. 3).

Concerns over misleading labelling were not limited to labelling of juice products. Several participants suggested that fresh fruit may also be incorrectly labelled. For example, the ACG commented:

... many retailers just don’t seem to label imported product, even though they’re mandated to. Sometimes we see Californian navels labelled as Australian, and it’s just pretty disgusting when you see that, especially in the local supermarket here in Mildura; if they can’t even get that right, then there’s something wrong everywhere else. (trans., p. 158)

The desirability of adopting strategies to reduce misleading labelling on citrus products depends on whether the additional benefits (to growers, processors and consumers) from changing labelling practices outweigh the additional costs (say, in terms of increased monitoring and enforcement).

Existing institutions and arrangements

Claims made about fresh citrus products, fruit juices and juice products are already subject to government regulation and legislation, industry self-regulation and market responses. These constraints on misleading behaviour include provisions in the Trade Practices Act and in similar State legislation, as well as Australia New Zealand Food Authority (ANZFA) food standards and a fruit juice industry code of practice.

Consumer protection provisions — the Trade Practices Act

Part V of the *Trade Practices Act (Commonwealth) 1974* contains a range of provisions aimed at protecting consumers and corporations that qualify as consumers. Sections of direct relevance to labelling in citrus product markets include:

- s. 52 — a broad provision that prohibits conduct by business that is misleading or deceptive, or is likely to mislead or deceive;
- s. 53(a) — a specific provision that prohibits false claims about the standard, quality, value, grade, composition, style, model or history of goods or services;
- s. 53(eb) — a specific provision that prohibits false claims about the place of origin of goods; and
- s. 55 — a broad provision that prohibits conduct that is liable to mislead the public as to, among other things, the nature, manufacturing process, or characteristics of any goods.

In addition, Division 1AA sets out the characteristics a good must have to ensure that a claim about its country of origin does not breach s. 52 or s. 53(eb). In general, in assessing claims about the country of origin (for example, ‘Australian Made’, ‘Made in Australia’ or ‘Manufactured in Australia’), a key determinant is that the goods have been ‘substantially transformed’ in Australia (s. 65AB). The Australian Competition and Consumer Commission (ACCC) (2000) suggested that reconstituting imported concentrated fruit juice into fruit juice for sale (whether or not Australian water, sugar, preservatives and packaging were used) is unlikely to constitute a ‘substantial transformation’. Claims that goods are the produce of a country (for example, ‘Product of Australia’ or ‘Produced in Australia’) are subject to stricter requirements — all of the significant ingredients or components of the goods must come from the country mentioned and virtually all of the production or manufacturing processes associated with the goods must occur within that country (s. 65AC).

The Commission notes that providing specific guidance to producers (and consumers) about how potentially false or misleading claims will be considered and enforced under the general provisions may improve labelling outcomes. For example, providing guidance may improve compliance if firms unintentionally breach general provisions and are willing to change their labelling practices in response to the new information. The existence of such guidance, however, will not in itself prevent intentionally misleading claims.

The ACCC investigates alleged breaches of the consumer protection provisions of the Trade Practices Act. The ACCC focuses on ‘industry-wide conduct and conduct

that affects large numbers of consumers, to achieve outcomes that make the most effective use of its resources’ (ACCC 2002c).

The ACCC has taken action in relation to alleged misleading labelling of fruit juice and fruit drink products. The ACCC has investigated alleged misleading claims concerning the country of origin of fruit juice and fruit drink products — for example, claims that a juice product was a ‘Product of Australia’, ‘Australian squeezed’ and ‘Locally squeezed’ or ‘Made in Australia from Australian Fruit Juice’ when it contained juice reconstituted from imported concentrate (ACCC 2001a, 2001c). The ACCC has also investigated misleading claims about the composition of products — for example, claims that a product was ‘From 100 per cent whole fruit, not just the juice’ when it was a blend of reconstituted juices and purees (ACCC 1999). More recently the ACCC has instituted legal proceedings against a manufacturer of cordial products regarding the allegedly misleading labelling practices — where pictures on the product label suggest that it contains particular fruit when it does not contain, or is not made from, them (ACCC 2002a).

If the ACCC decides not to take action, the Trade Practices Act allows for private parties to take action.

Consumer protection provisions — State arrangements

Consumer protection provisions are also found in various State and Territory legislation, although instances of these provisions being used in relation to alleged misleading or deceptive labels for citrus products are rare. For example, the Victorian *Fair Trading Act 1999* prohibits false representations about the standard, quality, value, grade, or composition of goods as well as false or misleading claims about the place of origin of goods (s. 12). In addition, Part 2 of the Victorian *Food Act 1984* contains a range of provisions that prohibit false, misleading or deceptive labelling and packing of food. The section also makes it an offence to use false, misleading or deceptive advertisements and promotions.

ANZFA food standards

ANZFA develops foods standards that apply to all foods (produced or imported) for sale in Australia and New Zealand.

Food standards act in conjunction with other applicable laws, such as the Trade Practices Act (and State and Territory Fair Trading Acts). Food standards have the force of law — it is a criminal offence in Australia to supply food that does not comply with relevant food standards. In Australia, responsibility for enforcing and

policing food standards rests with the State and Territory Governments (ANZFA 2002).

The *Food Standards Code (Volume 2)* contains agreed general standards for product labelling (including claims regarding nutritional information and ingredients) (Part 1.2), the use of food additives (Standard 1.3.1) and processing aids (Standard 1.3.3) (ANZFA 2002).¹

The code also contains specific requirements relating to the composition and labelling of fruit (and vegetable) juices, including that:

- fruit juice must have no more than 40g/kg of sugars added to it; and
- fruit juice that contains more than 10 per cent (in total) mandarin juice or tangelo juice must be labelled to include the names (and percentage by volume) of each juice present in the blend (Standard 2.6.1).

The ANZFA is currently reviewing its country of origin labelling of food requirements (currently included in Standard 1.1.3, which covers transitional and temporary standards).

A voluntary code of practice

The *Code of Practice and Administration Rules for the Fruit Juice Industry* was developed to prevent ‘adulteration of juices and other unfair practices in the processing, reconstituting, packaging, marketing and labelling of fruit juice products’ (AFJA 2000, p. 3). The code applies to all fruit juices, fruit drinks and cordials as well as retail and industrial concentrate. The code covers the bulk of the industry — with fifty signatories in September 2001 (AFJA 2001). It is now administered by the Australian Fruit Juice Association (AFJA).

The code outlines appropriate manufacturing and marketing practices that are in line with existing legislation, as well as agreed procedures, rules and sanctions to respond to alleged code breaches. This includes:

- monitoring the authenticity of randomly selected products in the market place; and
- responding to individual complaints.

¹ The *Food Standards Code (Volume 2)* was adopted in November 2001, replacing the previous food standard code (now referred to as Volume 1). Transitional arrangements between the adoption of Volume 2 and the repeal of Volume 1 allow manufacturers, importers and retailers to manufacture and sell food in compliance with either Volume 1 or Volume 2, but not a combination of these.

The code is voluntary and self-regulating — with signatories encouraged to refer concerns about possible breaches of the code to its Industry Compliance Committee for action. Under the draft procedures for breaches of the code (labelling issues), alleged breaches of the code are reported to the Industry Compliance Committee for review. If the labelling is deemed not to conform, the Industry Compliance Committee notifies the AFJA, which in turn notifies the offending company. If the company does not respond, or continues to breach the code, the AFJA notifies the ACCC, requesting that ‘the strongest possible action be taken’ (AFJA 2000, 2001).

Between 1993-94 (the first year official product testing was carried out) and 2000-01, 524 products were tested and 98 actions taken (that is, ‘letters of non-conformance’ issued).

- In most cases, non-conformance involved labelling problems such as describing a product as ‘fresh’ when it contained concentrated juice, or describing a product as a ‘Product of Australia’ when it contained imported juice. Information about seven companies that continued to breach the provisions of the code was passed to the ACCC (or relevant health department) over this period (AFJA 2001).

In 2000-01, ten companies were issued with a letter of non-conformance, with seven taking immediate corrective action and three being issued with a second letter of non-conformance.

The Commission notes that effective self-regulating codes of practice (consistent with general provisions) can improve labelling outcomes. Effective codes can provide a flexible, cost-effective approach for addressing specific problems and practices within an industry. Consequently, self-regulating codes often respond more easily and quickly to changing market conditions. In addition, members of an industry can feel some ‘ownership’ of the regulation, which may improve compliance.

The ACCC has been advising the AFJA in connection with its voluntary code since 1999. The Commission is aware that there is continuing disagreement between the ACCC and AFJA on the meaning and interpretation of descriptors including ‘100 per cent’, ‘pure’ and ‘seasonal availability’ (ACCC, pers. comm., 27 March 2002). The Commission notes that this may result in the Industry Compliance Committee decisions being out of step with ACCC views on these issues. However, the ACCC can take action directly where it considers that urgent or more appropriate action is required (as outlined above).

Consumer responses

In theory, consumer responses to misleading claims (including boycotting products) may discipline the actions of companies providing misleading claims about their product. However, the effectiveness of such responses in practice is unclear. Whether consumers actually read the label or take the information provided by the label into account in their decision making is important. Indifference on the part of consumers may be a factor:

Labelling of 100 per cent orange juices is not considered to be a major issue with the majority of purchasers ... imported juice content is not a consumer issue at this time. It may be an issue with growers but consumers are not seeing it as an issue. (Aurora Practical Solutions 2002, p. 24)

Where it is not, the effectiveness of consumer responses may be limited by the effort required by individuals to gather the relevant information to verify or refute the claim.

FINDING 8.1

Existing institutions and regulatory arrangements, when taken together, appear sufficient to limit misleading labelling practices.

Improving the performance of the existing regime

Participants have suggested a number of ways to improve the performance of the existing regime, in terms of clarifying terms and definitions or in achieving greater compliance with the existing regime.

Kent Andrew, a grower, suggested that:

There should be more distinct labelling of fruit juice, particularly in regard to country of origin, 100 per cent fresh and 100 per cent reconstituted product and the maintaining of at least 3mm (preferably larger) minimum font size lettering. (sub. DR106, p. 1)

The Citrus Board of South Australia suggested:

Immediate reforms to current labelling requirements [are needed] to allow clearer identification of imported products, greater penalties for breaches and improved policing. (sub. 78, p. 1)

While acknowledging the recent changes to labelling laws, the ACG commented that:

It wants to see clearer labelling with larger font size and more transparent definitions to distinguish between fresh juice and reconstituted juice. ACG strongly supports the

statement of the actual country of origin on the main label or ingredient list, in large typeface of at least 3 mm on citrus juice products.

In cases of mixed supply, ACG believes that the major (two-thirds) ingredient should constitute the country of origin, and that this be noted on the main label or ingredient — for example, Ingredients: Reconstituted Brazilian orange juice, Vitamin C (300). (sub. 72, p. 34)

The Commission notes that there are potential benefits and costs associated with various approaches to labelling laws. For example, more rigorous monitoring and policing may improve compliance but may come at a significant cost in terms of time and resources, which is ultimately borne by consumers (through increased prices) and by taxpayers.

A number of participants have argued that requiring manufacturers to apply a label that provides specific information about particular attributes can improve labelling outcomes.

However, it is unclear whether specific labelling requirements offer significant benefits to consumers (IC 1996b). For example, in terms of country of origin labelling, it is unlikely that mandated descriptions will have unambiguous meanings in the mind of consumers (ORR 1994). In addition, if there is ambiguity, prescribing particular meanings to particular descriptions may cause greater confusion or may not convey the intended message.

Prescriptive labelling requirements can also impose additional costs on processors that are ultimately borne, at least in part, by consumers. For example, it may be costly to identify accurately and specifically the proportion of juice made from fresh juice, and domestic and imported concentrate, if the shares vary significantly over time or change rapidly (perhaps as a result of unanticipated seasonal variations or changes in market conditions). The additional costs of unnecessarily specific labelling requirements would be a particular concern if consumers do not use the information provided on the label when making purchasing decisions.

Moreover, if concerns about existing labelling practices reflect problems of compliance with the general provisions and industry code, then it is not clear whether specific labelling requirements would be any more effective. The lack of enforcement of general provisions is not a reason in itself to enact specific regulation — without an increase in resources for policing and enforcement, a specific regulation is unlikely to be better than general provisions (ORR 1994).

FINDING 8.2

Concerns about existing institutions and arrangements governing the labelling of citrus products are likely to reflect problems associated with ensuring compliance with those arrangements by citrus processors.

Adopting strategies to improve compliance would be appropriate if the expected benefits outweigh the costs.

Effects on citrus growers, processors and consumers

The potential benefits from improved performance of the labelling regime depend, in part, on whether existing arrangements are significantly affecting citrus growers, processors and consumers.

The Commission notes that it is difficult to quantify the effect that misleading labels have had on citrus growers and processors. Moreover, it is difficult to isolate the effects of labelling (and consequently misleading labelling) from other marketing strategies, or from broader changes in consumer preferences or production decisions. For example, consumers who ‘buy Australian’ may also consider the price, flavour or quality of the juice in their consumption decisions (box 8.1).

Nevertheless, it is useful to understand how potentially misleading labelling may affect growers, processors and consumers. For example, misleading labelling on juice products can affect other processors by eroding their competitive advantages in niche markets, in particular for ‘fresh’ juice. This could influence processors’ production decisions and input requirements, and consequently affect growers. If processors substitute away from Australian products, the demand for Australian oranges for processing may fall.

The effect on individual growers will depend on their production decisions and, in particular, the relationship between oranges sold as fresh fruit and oranges sold for processing (fresh juice and concentrate).

- When growers are focusing on the fresh fruit market, the effect of misleading labelling on juice is likely to be modest.
- The effect is likely to be larger for valencia growers supplying a high percentage of fruit for processing into fresh juice or concentrate markets.

In addition, seasonal variations may have an influence since they can affect the proportion of fruit supplied to the fresh fruit, fresh juice or concentrate markets (see chapter 2).

Box 8.1 Consumer preferences and consumption choices

In November and December 2001, Aurora Practical Solutions surveyed 1368 people in the Sydney metropolitan area and the Dubbo region of New South Wales to gain insights into consumer preferences and consumption choices for fresh oranges and orange juice.

The survey findings suggest that orange juice labelling is not a major issue for the majority of purchasers — 60 per cent of respondents believed that orange juice labelling was truthful, while 18 per cent considered it misleading or very misleading. The main concern (28 per cent) was that products labelled as 100 per cent orange juice could potentially not be 100 per cent juice. There were also concerns about additives not being specifically stated on labels, including added sugar and chemicals.

The study suggested that the overall perception of truthfulness in labelling is, in part, explained by the high level of loyalty to particular brands of orange juices — 73 per cent of respondents claim to have a 'main brand' bought more often than other brands. The key influences on the brand choice varied but included consistent flavour or good taste (30 per cent), discounted price (14 per cent) and sweetness (11 per cent). Being an Australian-owned company or product also affected brand choice, but this was not a major influence (4 per cent).

The perception of truthfulness may also reflect a lack of awareness or understanding of the potential problems with orange juice labels.

The survey findings suggest that consumers consider a range of factors when purchasing fresh oranges. Consumers seek oranges that are 'very juicy' or 'sweet' — 49 per cent of respondents rated 'very juicy' as the first or second most important factor influencing their purchase decisions and 39 per cent rated 'sweet' as an important factor. Valencias are often considered more juicy, while navels are considered sweeter. In addition, consumers often use appearance (good skin texture), firmness and size as indicators of whether the orange is likely to be juicy or sweet.

Source: Aurora Practical Solutions (2002).

Misleading labels can also affect consumers' choices between competing products, especially when it is difficult to gain access to this information elsewhere. The size of this effect will depend on, among other things, the priority that consumers place on labelling and the level of misinterpretation and dissatisfaction among consumers who are interested in the information (box 8.1). The Commission does not have any evidence indicating that existing labelling arrangements for citrus products are a major concern to consumers. The fact that consumers pay a significant premium for fresh juice (compared with juice reconstituted from concentrate) indicates an important degree of consumer discernment about such products.

8.2 Cost and availability of inputs

A number of participants considered that restricted access to some key inputs and increases in input costs were impeding the development of the citrus industry. Issues raised in submissions included:

- the availability and cost of labour;
- access to chemicals; and
- the availability and cost of water.

Availability and cost of labour

Chapter 3 noted that labour forms the largest component of the total costs of growing citrus. This means that the availability and cost of labour have important effects on grower performance:

... we probably lost \$40 000 last year in fruit that we just couldn't get harvested at the right time because of the unavailability of labour. Now, I've seen, in over 50 years, a gradual progression ... The availability of suitable labour is going to be a major issue if we're going to expand this industry, and I believe it's got tremendous potential in the export field. (Mid-Murray Citrus Growers Inc., trans., p. 213)

For the citrus industry, like other industries, wage rates are influenced strongly by the overall performance of the economy — as productivity improves, wage rates rise. For a labour-intensive industry, growth in real wages can pose a problem.

Where economy-wide factors are influencing the availability and cost of labour, citrus growers have little choice but to adapt. This may mean that growers need to manage their use of labour and capital skilfully if they are to contain the growth of its unit labour cost. For example, growers may economise on farm labour (say, by substituting contract labour for permanent labour) or may look for ways to mechanise some previously labour-intensive tasks. It can also mean that growers may need to pay more to obtain the necessary labour or offer better working conditions.

Government policies, in areas such as immigration, industrial relations, workers' compensation and superannuation, can also influence the availability and cost of labour, particularly seasonal labour.

Access to adequate seasonal labour was a significant issue for a number of participants. According to ACG:

A highly regarded source of harvest labour by growers is working holiday makers from overseas. The supply of this labour is constrained by the number of visas issued by the

Australian government — which in turn depends on the negotiation of international agreements between Australia and other participating countries. While the number of working holiday makers has risen significantly over the 1990s, the citrus industry must compete with many other industries to attract them. The growing industry would welcome the issuing of a greater number of visas to working holiday makers. (sub. 72, p. 31)

The ACG also considered that the requirement for growers to verify the work status of seasonal workers is placing an additional unnecessary burden on growers:

... the Department of Immigration and Multicultural Affairs should not require growers to request itinerant workers to provide a passport or birth certificate before commencing work. (sub. 72, p. 31)

A number of participants argued that governments have been placing an increasing burden on farmers in the areas of superannuation and workers' compensation. Growers considered that changes to superannuation and workers' compensation arrangements had increased the cost of employing workers and added to the difficulties in managing farms.

The ACG proposed increasing the superannuation threshold (sub. 72, p. 41).

Ian Armstrong commented that:

The other thing is the superannuation guarantee eligibility. That's something that needs to be raised higher because what is happening is that people, because of the nature of the industry, don't pick for a very long period of time. If they earn more than \$450 in a given period of time then the levy has to be taken out, and we would like to propose that it went to \$1000 a month rather than \$450 a month.

The reason why we pose this is that the money is not actually going to the people that it should go to, but it finishes up deposited away somewhere, or frittered away by some of the superannuation companies ... That's a real concern, and so we are asking that payments for working holiday-makers be exempt from the superannuation guarantee requirement. That would give them more of an incentive to work. I believe it is unfair that they never see that money again. (trans., p. 433–434)

The Commission notes that benefit protection currently applies to small and lost member accounts — member balances of less than \$1000 are protected from erosion by fees and charges. In its review of superannuation industry legislation, the Commission found that preventing the erosion of small account balances is warranted (PC 2001c).

The Government established a Harvest Trail Working Group in 1999 to examine the supply of labour in harvest regions. The working group found widespread concerns across a number of areas, including knowledge of harvests and harvest work opportunities, transport, accommodation, taxation, superannuation, health and

safety, pay and working conditions, and the interaction between the labour market and the welfare system (NHTWG 2000).

The report noted that although most growers reported experiencing shortages of labour, growers who were prepared to offer competitive wages and working conditions experienced less difficulty in obtaining adequate labour. The report also considered that a lack of planning by growers may contribute to labour shortages — ‘in a number of locations under significant crop expansion, little consideration was being given by growers to their forthcoming needs for seasonal workers’ (NHTWG 2000, p. 6).

The working group made a broad range of recommendations across all areas. The report’s major recommendation was a nationally promoted ‘harvest trail’ to assist growers who need workers to harvest their crops as well as help people find harvest jobs (Abbott 2000b). Among the recommendations on superannuation was a proposal that the Government consider allowing itinerant employees who earn up to \$1800 over a period of two months, and who work for the same employer for two months or less over a year, to choose between having the superannuation guarantee contribution paid into a superannuation fund or receive the equivalent in increased wages.

The Government has yet to respond formally to these recommendations. Nonetheless, there have been a number of changes in response to the report. A harvest trail page has been established on the job search website. This includes examples of harvest trails to follow to find seasonal work, links to jobs, and accommodation and transport information. In 2000, the Government trialled a requirement that job seekers in the Riverland area of South Australia look for at least half of their number of required jobs in harvest-related industries (Abbott 2000a).

As the impact of government policies in areas such as immigration, workers’ compensation and superannuation extend well beyond the citrus industry, it is difficult to make a case for changes in these areas as part of this industry-specific review. Nonetheless, participants considered that government policies in these areas have adversely affected the industry by imposing significant compliance costs on growers, and possibly deterring them from employing additional labour. The seasonal nature of much of the labour used in the citrus industry, together with the high rate of labour turnover, are of relevance in this context. Governments should take these impacts into account in reviewing and making policies in these areas.

In making and reviewing superannuation, workers' compensation and immigration policies, Commonwealth, State and Territory Governments should take into account the potential compliance costs for citrus and other horticultural producers. For example, periodic increases in the Superannuation Guarantee threshold (below which payments to employees are exempt) in line with wage rises would maintain the real value of the threshold while easing compliance costs for citrus growers.

Access to chemicals

As noted in chapter 3, the citrus industry relies upon a variety of agricultural chemicals for pest and disease control, and also to meet the quarantine requirements of both domestic and export markets. Increasingly, chemicals are also being used to help manage crops (for example, to promote or delay fruit ripening and to undertake tree thinning).

The National Registration Authority (NRA) is responsible for evaluating, registering and regulating agricultural and veterinary chemicals in Australia. Before an agricultural or veterinary chemical product can enter the Australian market, it must be assessed by the NRA to ensure that it meets high standards of safety and effectiveness. The NRA is also responsible for developing codes of practice, standards and guidelines covering the manufacture, export, import, sale, handling, possession, storage, disposal and use of chemical products.

A number of participants raised concerns about the registration of chemicals in Australia. The ACG submitted that:

At present under NRA procedures growers need to incur significant costs and wait considerable periods to gain access to chemicals ... The result is higher production costs as growers are forced to substitute expensive labour for cheaper chemicals, reduced international competitiveness and lower net returns and value added from the resources used to grow citrus. (sub. 72, p. 32)

The regulatory framework for registration of agricultural chemicals is unnecessarily costly and needs reforming ... Under current procedures followed by the NRA growers are effectively being denied access to important crop chemicals which are being used by our competitors, some of which are exporting fruit to the Australian market. (sub. 72, p. ix)

To illustrate the potential consequences of a lack of access to new chemicals, the ACG discussed the example of Corasil E (a chemical for regulating plant growth).

The ACG stated that Corasil E:

... is registered and used in Spain and South Africa to improve fruit size in citrus crops. The product has the ability to thin the crop when sprayed early and improve fruit size when sprayed approximately 3 weeks later. The industry has jointly funded with the chemical manufacturer, Nufarm Limited the costs to register the product. Three years of trial work is required of which one year has been completed. The product has the ability to increase returns significantly. The chemical company was approached about five years ago regarding registration. However, they were very reluctant given the large cost in having a product registered with the NRA. After many years of lobbying and with Horticulture Australia providing financial support the work has finally commenced. (sub. 72, p. 32)

It is difficult to assess the practical effect of current NRA policies and processes because the example of Corasil E illustrates how the industry itself can facilitate the registration of those useful chemicals which would not otherwise be economic for manufacturers to register.

Participants were concerned that the high cost of obtaining registration was deterring some manufacturers from investing in the development, registration or maintenance of some chemicals that, whilst important to citrus growers, would not generate a level of sales sufficient to outweigh these costs.

These costs reflect both the fees and charges for product registration as well as the costs associated with testing products and collecting appropriate data for evaluation for registration.

Fees and charges for chemical registration

The NRA operates on the basis of a full cost recovery from the chemical industry. The NRA recovers most of its costs by collecting:

- application fees — which vary according to the type of application and the assessment required;
- annual registration renewal fees for registered products — which are based on the value of a product's gross sales in the previous calendar year; and
- levies on the sales of registered products — which are payable on the value of a product's gross sales.

The NRA also receives an appropriation from Government of \$108 000 for 'minor use' chemicals (equivalent to 1 per cent of its revenue in 1999-2000) (NRA 2001).

The NRA has lowered initial assessment fees and increased annual fees (based on product sales) so as to minimise discouragement of new registrations (PC 2001a).

This means that firms pay the approximate costs of regulation over the life of the product, rather than before a product enters the market (NRA 2001).

Since 1995-96, the NRA's yearly cost recovery revenues have fluctuated around its cost recovery target — in 1999-2000, the NRA recovered around 109 per cent of its costs (NRA 2001, PC 2001a).

The NRA provided information on fees and charges for registration of pesticide products for Australian and comparable overseas registration systems. On the basis of this comparison, Australian fees and charges appear to be considerably below those applied in Canada, the United Kingdom and the United States (table 8.1).

Table 8.1 Fees and charges for product registration

A\$

| <i>Fee category</i> | <i>Australia^a</i> | <i>UK^b</i> | <i>Canada^c</i> | <i>USA^d</i> |
|---------------------|------------------------------|-----------------------|---------------------------|------------------------|
| Screening fee | 620 | 13 055 | 10 per cent of fee | – |
| New chemical | 20 620 | 250 000 | 216 000 | 129 250 |
| Extension of use | 10 310 | 4450–250 000 | 146 400 | 29 500 |
| Minor use permit | – | 19 960 | – | – |
| Annual renewal fee | 200–1000 | na | 3 228 (max) | – |

^a Australia places a levy on annual sales. ^b The United Kingdom places a levy equal to 1.89 per cent of sales (NRA pers. comm., 12 April 2002). ^c In Canada levies are used to calculate application fees, set at a maximum of 10 per cent of the revenue from sales during the sales verification period. (NRA, pers. comm., 11 April 2002). ^d The US fees are linked to the establishment of tolerances (maximum residue limits). The fees listed are minimum and increase with the number of food crop uses. – Nil. **na** Not available.

Source: NRA (sub. DR97, p. 2).

The NRA also collects levies on the gross sales of registered products. The levy (equal to 0.65 per cent of gross sales, to a maximum of \$25 000) is applicable when yearly sales exceed \$100 000 — there is no levy payable when yearly sales are less than \$100 000 (NRA 2002a).

Delays in obtaining chemical registration

Some participants suggested that the registration process causes undue delays in obtaining registration and that the NRA gives inadequate recognition to overseas test data when undertaking evaluations of new chemical products. For example, according to the Queensland Fruit and Vegetable Growers (QFVG):

The industry needs access to new chemicals or non-chemical alternatives and the research needed to develop and make these available is usually time consuming and expensive. In many cases access to new best practice products (which may already be available to overseas competitors) cannot be achieved because the Australian market is too small for the chemical companies to justify the investment required. (sub. 81, p. 12)

A particular concern related to the lack of recognition of overseas test results in evaluating the use of chemicals in Australia. For example, the ACG suggested:

As part of registering any product a large amount of residue data is required to satisfy the NRA, regardless of the results and information that can be presented from countries where the product is already registered. This residue data accumulation takes time and delays the industry in commercial use and economic benefits. Because of the high costs involved, chemical companies are reluctant to spend the money to conduct the research to register products as the citrus industry is relatively small in comparison to broadacre farming where companies make most of their chemical sales. (sub. 72, p. 32)

Likewise, the QFVG argued:

To a large extent [the registration] process reinvents the wheel as these [chemical] products have already been evaluated in this manner overseas. (sub. 81, p. 12)

The NRA refuted these criticisms. In respect of alleged delays in assessments, it commented:

What needs to be recognised by chemical registrants and growers is that because of the extensive scientific data to be reviewed, the process is, by necessity, lengthy. (sub. DR97, p. 3)

Registration with the NRA appears to be at least as timely as registration made in comparable overseas registration systems (sub. DR97). Registration may take up to 18 months to complete in the case of new products with new active constituents. This allows time for screening of an application, consultation and evaluation of the data submitted. Legislated timeframes for evaluation range from three months (for the extension of existing products into new uses) to 15 months (in the case of new products) (NRA 2002b). The NRA stated that it met legislative timeframes in 95 per cent of assessments (sub. DR97).

The NRA may accept relevant overseas information in making its assessments — for example, when the data and assessments are made by reputable overseas registration authorities, and when the data are relevant to Australian growing conditions, use patterns and agricultural practices. However, the NRA indicated that efficacy and residue data often need to be generated for local conditions:

It is not appropriate, we believe, nor in the best interests of sound chemicals management, consumer and user safety or environmental protection and trade, to utilise overseas data as a basis for the necessary risk assessment and regulatory decision making if those data do not reflect Australian use practices. (sub. DR97, pp. 2–3)

In certain restricted circumstances, the NRA may also issue a permit that allows the use of pesticides in ways that differ from the uses specified on labels. These ‘off-label’ permits are issued for minor and emergency uses. Off-label permit

approvals are generally restricted to registered products for which the toxicological and environmental data packages have been assessed (NRA 2000).²

The approval of minor use permits requires data for evaluation, but a much reduced data package may be suitable for evaluation purposes in some cases (NRA, sub. DR97). For example, the number of crop trials required may be reduced or the required data may be extrapolated from data from a crop with similar characteristics and growing conditions (NRA 2000).

The NRA does not charge fees for minor use permits (table 8.1, NRA 1999). Most applications take between 90 and 360 days to process, although high priority (primarily emergency) applications can be processed within 5 to 10 days (NRA 1999).

Between 1 January 1996 and 15 February 2002, the NRA received 3132 applications to use products 'off-label' in agricultural situations. The NRA has received 44 applications for off-label permits relating to citrus (for minor uses within citrus growing areas/regions or for emergency uses). Of these, 20 permits were issued and have since expired, 7 were issued and are still current, 3 are still pending, 10 were not issued and 4 were either cancelled or not required (NRA, pers. comm., 8 April 2002).³

FINDING 8.3

Appropriate and rigorous scientific evaluation of agricultural and veterinary chemicals in Australia, can be inherently time-consuming and/or costly.

However, it remains important to avoid any unnecessary delays and unwarranted duplication which might impose costs on chemical manufacturers. They could have consequent significant adverse impacts on the availability of chemicals for the citrus industry.

Availability and cost of water

A number of participants were concerned about the availability and cost of water — specifically, that rising costs and concerns about reliability, are impeding the performance of the citrus industry.

² Off-label permits may sometimes be issued for unregistered products. In these cases the onus is on the applicant to justify why the product should not be registered, and why an off-label permit is the preferred option (NRA 1999).

³ Permits are issued for a limited period (often between 2 and 3 years), but applicants can seek to renew a permit once it has expired (NRA, pers. comm., 8 April 2002).

The availability of water supplies and delays in addressing concerns about water security were major issues for citrus growers in some parts of Queensland. The QFVG stated that:

The Central Burnett [region] has experienced chronic drought conditions for most of the past 10 years.

The lack of water is holding back further development of the industry, and the lack of water security is resulting in the (current) removal of some orchard blocks in the upper reaches of the Burnett River.

The industry in the Burnett has not been able to drought proof itself, even with water storages built in the 1970s. Burnett growers have typically had to operate at from 0 to 50 per cent of their water allocation for most of the past 10 years.

Five new water infrastructure proposals have been under consideration for the Burnett Catchment for some years, comprising upgrades to two weirs, construction of two new weirs and a new dam. The first two of these have recently been approved, and a decision on the others is still pending.

The process to getting these facilities has been particularly onerous, with studies carried out, water use efficiency measures promoted as alternatives, and extensive consultation and negotiation required over a long period of years. This process has been long winded, burdensome and cruel, whilst growers suffered considerably with extended drought conditions throughout the 1990s. (sub. 81, pp. 15–16)

Without detailed information on the circumstances in the Central Burnett region and the process followed to augment the water infrastructure along the Burnett River, the Commission is unable to comment on the specific issues raised by the QFVG. However, it notes that various factors such as growing competition for water resources and heightened concerns about environmental issues have caused governments to look more carefully at the need for new water infrastructure and the associated environmental impacts.

Aside from availability issues, some citrus growers were concerned about the potential effect of proposed water reforms on the cost of irrigation water. For example, the Mid-Murray Citrus Growers Inc. expected that proposed water reforms will lead to higher water costs (sub. 9, p. 5). Riverina Citrus also expected significant increases in water costs (trans., p. 104).

FINDING 8.4

Competition for access to water resources and reforms designed to ensure that water resources are used more efficiently may result in some price rises for citrus growers and other irrigators. Some reforms (such as extending trade in water allocations) may provide offsetting benefits to some growers in terms of greater security of supply in some areas.

8.3 Market power of supermarkets and processors

A number of citrus growers expressed the concern that large buyers, such as independent packers, processing companies and large retail chains, have the power to drive down prices for citrus products by trading small producers off against one another. This concern is shared by primary producers in many other sectors (see Griffith 2000). Some citrus growers feel that they have little negotiating power and must accept the prices or contracts offered by large buyers on a ‘take it or leave it’ basis.

For instance, the ACG stated that:

Growers perceive that they lack bargaining power with purchasers ... [and that] growers are forced for the most part to take spot market prices for their fruit. Some price contracts are offered by processors/packers but these are on a take it or leave it basis. (sub. 72, p. 20)

Similarly, the Murray Valley Citrus Marketing Board considered that:

[There is an] imbalance of market power [with the not from concentrate juice market segment] totally dominated and controlled by the large processors. Growers have absolutely no opportunity to be involved in any negotiation process. Typically, in the Murray Valley region growers rely on their packers to find processing markets for ‘overrun’ fruit which is graded out as unsuitable for fresh market packing. The packers also have no market power dealing with processors. Even where contracts are drawn up, the prices, terms and conditions are virtually dictated by the processors. (sub. 75, p. 16)

Like many other agricultural sectors, the citrus industry is characterised by a large number of small growers, comparatively few big growers, and a small number of large buyers. Currently, there are around 3000 citrus growers in Australia. As noted in chapter 3, seventy per cent of Australia’s citrus growers account for only eleven per cent of total production. Around 50 per cent of the oranges produced in Australia are used in the processing sector, which has been undergoing significant rationalisation. According to the AFJA (sub. 76), there are around eight companies that undertake processing. The largest company (Berri Limited) accounts for around 50 per cent of the Australian market for juice products.

The other half of Australia’s annual orange crop is exported or sold domestically as fresh fruit. In this market segment the major buyers are packers, wholesalers and brokers, and retailers. A large number of packers handle fruit for growers, although a large proportion of fresh citrus is packed by a small number of packing companies. According to Retailworks (2001, p. 7), the two major retail chains (Coles and Woolworths) account for around 65–70 per cent of the domestic retail market for fresh produce.

Participants considered that the market power of large buyers has two significant effects on the growing sector.

First, some considered that large buyers have used their market power to reduce returns to growers. The QFVG (sub. 81, p. 13) stated that the prices that citrus growers receive for fruit are determined not by their value added contribution but by the superior negotiating power of retailers and wholesalers. It argued that this has resulted in a 'redistribution of the consumer's dollar from the producer to the retailer and/or wholesaler'.

If significant enough, the redistribution of returns from growers to other sectors in the citrus supply chain could distort investment incentives by suppressing the returns to new investment in citrus, compared with those available from other agricultural activities.

For growers unable to borrow significant additional funds, it could also impair adjustment by reducing the availability of internally-generated funds to finance orchard redevelopment.

Second, some participants suggested that the buying power of processors and retailers may have impeded the sharing of information on market developments between the buyers and growers. ACG stated that:

Information in the citrus industry is not shared freely to all participants in the chain. In particular, growers are poorly informed about developments in the markets for their products and the cost structure in processing and other value adding and marketing activities for their fruit. As a result there is a considerable amount of suspicion among growers about whether they receive a fair share of the retail value of their fruit. These suspicions are heightened by the large and to date unexplained differences between prices for fruit at the farmgate and prices recorded in retail markets. (sub. 72, p. 21)

Some participants expected the dominant position of retail chains to become more pronounced due to the increasing practice of retail chains bypassing wholesalers to deal directly with packers. The Mid-Murray Citrus Growers Inc. stated that the practice of packers:

... supplying direct to retail chains [has] the effect of undermining the wholesale markets and price setting mechanisms [and that this] will inevitably transfer total power to the retail chains and provide the climate for growers returns to be driven below [the] cost of production — this will have no benefit for the consumer. (sub. 9, p. 3)

It is difficult to determine what effect, if any, the difference in numbers of growers and processors or large retail chains has had on the gap between farmgate and retail prices for citrus products. This gap reflects, at least in part, a variety of value adding tasks that occur between the farmgate and retail outlets, such as grading, packing,

transportation and storage, and which contribute to the cost of the final product to the retailer. As Coles Myer Limited noted:

While farmgate prices are sighted as the return growers receive for their fruit it is but the first in a series of prices that determine the retail selling price. Grade, packing and packaging costs and transportation all impact on cost of product. Grower returns from a packhouse are usually before any washing, processing, grading and packaging costs have been added to the sale price to the packhouse who then process each tonne of growers fruit to standards required for export and domestic sale. This includes marketing the end product through the wholesale [markets] or direct purchase by the retailer. Additional costs the packer incurs include levies, certification, overhead and transport.

[Further down the supply chain, at the retail level] there are additional operating and overhead costs plus the need to recover a minimum margin and be competitive with prices offered by other fresh produce retailers. (sub. 85, p. 1)

In order to assess the potential size of the gap between retail and farmgate prices, the Commission asked Retailworks to provide information on the share of the final selling price of fresh valencia and processing oranges accruing to each element of the supply chain.

Retailworks reported separate estimates for valencia oranges, sold either as loose fruit on a per kilogram basis or in 3 kilogram bags, and for fresh juice, in 2000-01 (tables 8.2–8.4).⁴ These estimates were derived by Retailworks from various industry contacts and do not include exported citrus, which generally attracts higher prices than fruit sold domestically.

According to Retailworks' estimates, growers obtain between 27 per cent and 34 per cent of the retail price for fresh valencia oranges (sold loose or in 3 kilogram bags). These estimates suggest that the share accruing to the retail sector varies between 32 per cent and 45 per cent (or between 37 per cent and 52 per cent if the item 'retail consolidation and transport' is included with retail).⁵

For oranges destined for processing into fresh juice, Retailworks estimated that growers obtain between 9 per cent and 26 per cent of the retail price of fresh juice. According to these figures, the share accruing to retail chains can vary between 28 per cent and 32 per cent for fresh juice (or between 33 per cent and 39 per cent if retail consolidation and transport is included).

⁴ According to Retailworks, approximately 70 per cent of fresh valencia oranges is sold to consumers in 3 kilogram bags. The remaining 30 per cent is sold as loose fresh fruit.

⁵ 'Retail consolidation and transport' involves receiving deliveries of fruit and other groceries, sorting these into retail store orders and transporting orders to retail stores. Retailers may undertake this function or it can be sub-contracted to a logistics service provider (Retailworks 2001, p. 3).

Table 8.2 Estimated share of retail price accruing at each stage of the supply chain for fresh valencia oranges sold on a per kilogram basis, 2000-01

| <i>Stage</i> | <i>Unit</i> | <i>Estimated share (range)</i> |
|------------------------------------|-------------|--------------------------------|
| Farmgate | % | 27–34 |
| Packer | % | 18–22 |
| Transport to domestic market | % | 2–3 |
| Wholesale market or broker | % | 2–10 |
| Retail consolidation and transport | % | 5–7 |
| Retail | % | 32–38 |
| Assumed retail price ^a | \$ per kg | 1.79 |

^a The retail selling price is an average for 2000-01.

Source: Productivity Commission estimates based on Retailworks (2001, p. 4).

Table 8.3 Estimated share of retail price accruing at each stage of the supply chain for valencia oranges in 3 kilogram bags, 2000-01

| <i>Stage</i> | <i>Unit</i> | <i>Estimated share (range)</i> |
|------------------------------------|-------------|--------------------------------|
| Farmgate | % | 29–32 |
| Transport to domestic market | % | 5–6 |
| Net packing | % | 12–15 |
| Wholesale market or broker | % | 2–9 |
| Retail consolidation and transport | % | 5–6 |
| Retail | % | 35–45 |
| Assumed retail price ^a | \$ per kg | 0.66 |

^a The retail selling price is an average for 2000-01.

Source: Productivity Commission estimates based on Retailworks (2001, p. 4).

Table 8.4 Estimated share of retail price accruing at each stage of the supply chain for fresh juice, 2000-01^a

| <i>Stage</i> | <i>Unit</i> | <i>Estimated share (range)</i> |
|---|--------------|--------------------------------|
| Farmgate | % | 9–26 |
| Transport to processing plant | % | 4–5 |
| Juice processing, packaging, marketing and distribution | % | 32–54 |
| Retail consolidation and transport | % | 5–7 |
| Retail | % | 28–32 |
| Retail selling price ^b | \$ per litre | 1.98 |

^a The estimates assume that one tonne of fruit yields an average of 470 litres of fresh juice. ^b The retail selling price is an average for 2000-01.

Source: Productivity Commission estimates based on Retailworks (2001, p. 5).

While the Retailworks estimates were based on valencia oranges, it expected that the various elements of the supply chain for navels would receive similar shares but that retail prices would be higher.

It is important to consider the variable nature of citrus markets in interpreting the Retailworks estimates. Retailworks considered that the estimated returns to growers are determined largely as a residual — that is, the amount left over after other elements of the supply chain have deducted their returns. Consequently, year to year variations in market conditions can affect the returns to growers over time. This means that the retail prices and returns to growers reported by Retailworks are probably more reflective of recent returns. (The 2001-02 valencia season has apparently yielded better farmgate prices and returns to growers than recent valencia seasons (see chapter 2).)

ACG questioned the Retailworks finding that a significant share (between 27 per cent and 34 per cent) of the retail price for fresh oranges accrues to growers. It provided information suggesting that the share of the retail selling price accruing to growers is below that reported by Retailworks, ranging from 12.3 to 23.1 per cent during the period between 1995 and 1999 (sub. DR99, p. 3).⁶

However, the ACG estimates are likely to understate the share of the retail price for fresh oranges accruing to growers. This is because ACG compared retail prices for fresh oranges (derived from ABS data) with farmgate prices for fresh and processed oranges (based on a survey of Murray Valley growers). Since growers generally receive less for oranges destined for processing, the ACG has understated farmgate returns for fresh oranges.

Retailworks also estimated that margins accruing to particular elements of the supply chain (as indicated by the gap between the lower and higher shares) can vary quite significantly. The gap between the lower and higher shares was pronounced for the wholesale market or broker segment. Retailworks observed instances of multiple selling of fruit between wholesalers before it is sold to a retailer or food service customer. While noting that this could be a method of trading smaller quantities to many sub-markets (and therefore a value adding activity), Retailworks said that this practice could have the effect of reducing grower returns and raising retail prices. A large gap was also observed for the share accruing to growers from juicing oranges (possibly reflecting differences between contracted and uncontracted orange prices).

⁶ ACG also considered that the farm-gate prices implied by the Retailworks estimates were too high. Based on a retail price for fresh valencia oranges of \$1.79 per kilogram, table 8.2 implies that growers would receive between \$483 and \$608 per tonne. ACG considered that growers received much less than this (chapter 2).

Berri Limited noted concerns about the size of margins in the packing sector, stating:

There are concerns that the fresh juice prices paid by processors to growers (through packers) have not always been passed back to growers which undermines their returns. (sub. 80, p. 16)

Without information on the value added at each stage of production, it is difficult to draw firm conclusions about the possible use of buying power to reduce grower returns. That said, the Retailworks estimates highlight a number of significant points:

- the retail sector and processors account for a significant proportion of the share of the retail price for fresh fruit and fresh juice;
- for fresh fruit and fresh juice, several other stages, such as packers, transport companies and wholesale markets provide a variety of value added services; and
- the shares accruing to each stage (particularly the share going to packers and to growers for processing oranges) can vary significantly.

In addition, as an increasing number of growers develop the ability to sell fruit domestically or on export markets, based on the relative returns available in each market, any market power possessed by large domestic buyers is likely to diminish. Growers with the capacity to export are likely to be more capable of resisting any attempts by large domestic buyers to suppress local prices below those available in export markets.

General concerns about the relationship between retailers and primary producers have led to the development of a Retail Grocery Industry Code. The code was finalised in 2000 and is aimed at assisting primary producers (such as fruit growers) in the supply chain relationship (ACCC 2001d). The objects of the code are to:

- promote fair and equitable trading practices amongst industry participants;
- encourage fair play and open communication between industry participants as a means of avoiding disputes; and
- provide a simple, accessible and non-legalistic dispute resolution mechanism for industry participants in the event of a dispute.

A Retail Grocery Industry Ombudsman was appointed in July 2001 to deal with commercial disputes between participants in the retail grocery industry supply chain.⁷ The role of the ombudsman is to mediate on disputes where attempts by the parties to settle matters (for instance, via a retailer's internal dispute resolution

⁷ Further information on the code and the role of the Ombudsman are available on the Retail Grocery Industry Ombudsman's website: <http://www.mediate.com.au/rgio/ombudsman.htm>.

procedures) have failed. Rather than imposing solutions, the role of the Ombudsman is to assist the parties to explore options and resolve disputes by agreement.

Since the office of the Ombudsman was established, several disputes relating to products such as mangos, apples and chickens have been resolved through mediation. The Commission understands that no disputes involving the citrus industry have been brought before the Ombudsman (pers. comm., 9 April 2002).

Consideration has also been given to dealing with concerns about market power in the supply chain through groups of growers entering into collective bargaining arrangements with large buyers. For instance, the ACG indicated that it intends to explore the avenue of seeking an authorisation under the *Trade Practices Act 1974* for a collective bargaining agreement involving growers (sub. DR99, p. 2).⁸

The Commission notes the recent moves by groups of dairy producers to seek authorisation for proposals to bargain collectively with large buyers (such as milk processors) over matters such as farmgate prices and milk standards. In December 2001, the ACCC issued a determination granting authorisation to a group of Queensland dairy producers to negotiate collectively with a major milk processor (Pauls Limited) (ACCC 2001b). Then in March 2002, the ACCC granted authorisation to the Australian Dairy Farmers' Federation to negotiate with processors on behalf of groups of dairy farmers across Australia (ACCC 2002b).⁹

The ACG sought the endorsement of the Commission for a proposal to seek authorisation for a collective arrangement (sub. 72, p. 21). The Commission notes that seeking an authorisation is obviously a potential way to address the industry's concerns. It would be up to the ACCC, however, to determine whether the public benefits of a proposed collective arrangement would outweigh any anti-competitive effects. Subject to that important caveat, the formation of a collective arrangement is a possible means whereby the many small, domestically-oriented growers may be permitted to combine to enhance their bargaining position with large buyers.

⁸ Under Part VII of the Trade Practices Act anyone wishing to engage in conduct that risks breaching the anti-competitive conduct provisions of the Act may apply to the ACCC for an authorisation. An authorisation provides immunity from prosecution (for a period determined by the ACCC) for the applicants covering the proposed conduct. This part of the Act is designed to provide a safeguard against the application of the anti-competitive provisions of the Act, where it can be demonstrated that the public benefits of the proposed conduct outweigh the anti-competitive costs.

⁹ A major dairy processor (National Foods Limited) has applied to the Australian Competition Tribunal for a review of this decision (ACCC, pers. comm., 15 March 2002).

9 Are further measures needed?

Like many other sectors of the economy, the citrus industry has been experiencing structural change. This change is essential to the future prospects of the citrus industry, if it is to capitalise on its resource base and provide higher living standards for those in the industry and the community generally.

The evidence indicates that, in aggregate, the industry is adjusting successfully to changes in consumer preferences, increased export opportunities for fresh fruit and fresh juice, and increased imports of frozen concentrate orange juice (FCOJ). Despite a reduction of about 8 per cent in the number of citrus growers, the real value of citrus production has continued to increase over the past decade — at much the same rate as the economy as a whole. Growth in the real value of citrus exports has been even more impressive, outpacing the rate of increase in Australia's total exports. The industry is increasing its focus on the high value markets for fresh products, in which Australia has a competitive advantage. At the same time, the proportion of orange production processed for FCOJ has declined, reflecting Australia's lack of competitiveness in that market.

While citrus growers receive only a part of the value of gross production, the evidence presented in chapter 2 shows that average prices received for citrus at the farmgate are sufficient to cover average costs of production (including a rate of return on assets employed). This does not mean that all growers are in this favourable situation. Those with relatively large portions of their output processed into juice receive lower average prices, especially in years of high overall production of oranges — such as 2001.

The indications (from the evidence presented in chapter 3) are that most of the larger businesses in the industry are profitable. Some smaller citrus growers appear to be reliant on off-farm income to finance expansion or, in some cases, merely to cover living expenses. Most of them, however, are also engaged in non-citrus agricultural activities, which are often a more important source of income for them. Such diversity of production is common in Australian agriculture.

Notwithstanding the generally favourable prospects in fresh produce markets for the industry and for many growers, a number of submissions to this inquiry argued that an industry-specific adjustment package is essential to ensure the industry's future

and to assist some growers to exit the industry. The Australian Citrus Growers Inc. opined:

... the capacity of the growing industry to keep on investing in better varieties, more efficient production techniques and larger scale operations to ensure ongoing financial viability is reaching its limit. Without significant policy initiatives from government, the industry's continued contribution to regional and national income is at risk. (sub. 72, p. vii)

A similar view was expressed by the Leeton Shire Council:

Obviously individual growers have made other initiatives and implemented other actions to improve their efficiencies ... the industry has been progressively making significant changes ... to improve its productivity, but they are still finding that even this is not enough. (sub. 23, p. 2)

The industry-specific adjustment package proposed by the Australian Citrus Growers Inc. (sub. 72) and Riverina Citrus (sub. DR132) included a safeguard investigation (under World Trade Organization (WTO) rules on international trade) into imported FCOJ, and direct assistance for growers in the form of grants and low interest loans for:

- reworking and replanting of citrus trees;
- adopting innovative technologies relating to cultural practices and harvesting;
- acquiring land to increase farm size; and
- paying farmers to exit citrus growing (and agriculture) or to remove their citrus trees.

Not all participants considered that government assistance is the best solution to the challenges facing growers.

Warren Muirhead, from Griffith, made the comment:

The plight of the citrus industry in the Riverina is of concern to the local community and Griffith can ill afford to lose this industry.

My concern is that the industry is unlikely to survive as it has in the past as a commodity focusing on the concentrate market. The hope for the future is that it will change to one that, through value adding, will create a new range of products sought after by consumers. We are told that the next generation will spend 85 per cent of their money on products that are yet to be developed.

The Griffith community may well have a new vibrant industry if citrus growers encourage their representatives to spend more time talking to people knowledgeable in agribusiness, food technology and product innovation than politicians. (sub. 2, p. 1)

BGP International, an exporter of citrus, also considered that assistance

is not the solution, stating:

The major difficulty facing some Australian citrus growers is their unwillingness or inability to focus production on the fresh fruit market. There is no prospect that Australian growers can ever compete with dedicated juice areas such as Brazil, whereas there is a world shortage of southern hemisphere navels and an expectation that this will become more acute in the future.

Protection of the citrus industry is not only unnecessary but over the past 20 years has been counter-productive in that it has delayed essential adjustment. (sub. 40, p. 1)

In this chapter, two proposals for adjustment assistance are examined, namely:

- raising the tariff on imported FCOJ; and
- providing industry-specific adjustment assistance to citrus growers.

Raising the tariff on imported FCOJ is examined because the terms of reference direct the Commission to report on whether a formal safeguards investigation under world trading rules is warranted for the citrus industry. Such an investigation is required before a WTO member country can impose temporary tariffs or import quotas in order to alleviate serious injury to a domestic industry arising from an increase in imports.

Although the imposition of a quota is allowed for under WTO safeguards rules, it has not been considered explicitly as an alternative to a tariff. The imposition of a quota has disadvantages that make it clearly inferior to an ad valorem tariff (PC 1998a). Unlike a tariff, which is applied to the international price of FCOJ, a quota would completely insulate the industry from the incentives and disciplines of movements in this price. Further, it would be difficult and costly to administer the allocation of the quota between processors, and thereby introduce distortions to the FCOJ processing sector.

In assessing whether a safeguards investigation is warranted, the Commission has not evaluated whether such an inquiry would be likely to find that grounds exist for safeguard action. To do so could prejudice the findings of a safeguards investigation.

Rather, the Commission has assessed whether an increase in the tariff on imported FCOJ would be a good policy response to the challenges facing some sections of the citrus industry. Another reason for this approach is that the tariff on imported FCOJ is currently set at 5 per cent, below the bound rate of 24 per cent, meaning that the Commonwealth Government could increase it towards the bound rate without breaching international trading rules, and without the need for a safeguards investigation to show that this could be justified.

9.1 Assessment

Any assessment of proposals for adjustment assistance needs to have regard to some general principles.

First, in the Commission's view, it is not a role of government to ensure that the operations of every farm (or non-farm) business are able to provide an adequate level of income for its owners. Within the broad public policy framework established by government, farm and other business enterprises are normally left to operate according to their own decisions. Enterprises invest with regard to perceived risks and possible returns. If government took on the role mentioned, it would transfer much of the inherent commercial risks associated with agricultural production, and citrus growing, from farm owners to Australian taxpayers.

Second, adjustment assistance should not be provided to offset a poor financial outcome that is short-term in nature and due to the inherent volatility and risks of the market. Short-term fluctuations are a normal feature of Australia's agricultural industries and periods of low (and high) income are to be expected. Providing assistance to offset periods of adversity would again transfer the inherent business risks from farm owners to taxpayers.

Certain characteristics of the citrus growing sector, including the range of non-citrus agricultural activities undertaken on many farms, the increasing use of medium-term supply contracts and supplementation of farm income with off-farm employment, provide scope for growers to manage many of these risks. In addition, the Government has in place tax averaging arrangements and the Farm Management Deposit scheme, which allow citrus growers to reduce the tax disadvantages (relative to those with steady incomes) associated with variable income.

Third, such assistance needs to be implemented in a way that enhances efficiency and equity. This means, for instance, that it should not postpone inevitable change or favour a particular type of economic activity over others.

A number of participants disagreed with some aspects of the Commission's approach to assessing the situation and performance of the growing sector. Specifically, they objected to the Commission taking into account certain characteristics of citrus establishments, such as their non-citrus agricultural activities and off-farm income. These issues are discussed below.

Riverina Citrus stated:

This inquiry was implemented to review the profitability of the industry — not the profitability of other industries and crops — nor for the Commission to include the fact

that the growers earn off-farm income to support growers' meagre returns from citrus in their attempts to validate grower viability. (sub. DR132, p. 4)

... the Commission should note that [1(a) the financial conditions, including profitability, of the industry] in the terms of reference does not include the words 'profitability of the farm, or profitability of the household'. The Commission's assertions and evidence in this regard fall outside the terms of reference and should be dismissed and removed from the position paper'. (sub. DR132, p. 5)

The implication of such a view is that assistance should be provided to growers that are finding the citrus component of their enterprise unprofitable or who are unable to earn adequate household income from citrus alone, no matter what are the circumstances of their entire business operation and income levels. This would clearly run counter to accepted norms for the assessment of assistance needs.

The Commission consequently disagrees that taking into account other agricultural and non-agricultural income is outside the terms of reference. It sees consideration of this income as central to the evaluation of the need for, and the impact, effectiveness and fairness of, adjustment assistance. Furthermore, the general policy guidelines in the *Productivity Commission Act 1998* require the Commission to have regard to the overall interest of the Australian community. This means that the Commission has taken a broader view of the terms of reference than that proposed by some participants.

A temporary increase in the tariff on imported FCOJ

If a temporary increase in the tariff on FCOJ was to provide effective adjustment assistance to citrus growers, it would need to boost their profitability. The prospect of such a result appears slim, for several reasons.

First, most growers obtain the majority of their citrus income from sales of fruit to the fresh fruit and fresh juice markets in Australia and overseas. These markets appear to absorb approximately 85 per cent of total orange production in a normal year, and growers receive prices in these markets that are usually well above that of fruit used for processing into FCOJ. An increased tariff on imported FCOJ would be unlikely to have any marked effect on the prices of fruit supplied for these markets, which reflect the balance of supply and demand for fresh products. Although the evidence in chapter 2 indicated that the price of imported FCOJ has some impact on the movements in the prices received by valencia growers in these markets, it does not determine their prices. The Commission's estimate of the average farmgate price for valencias was at least twice that of FCOJ between 1997-98 and 1999-2000.

Second, a very high tariff would be required to have any significant effect on farm income for the declining number of growers who may have a sizeable proportion of their production sold for processing into FCOJ. This is partly because the price-raising effect of a tariff would be diluted by overseas transport costs, as the tariff is applied to the free-on-board price of imported FCOJ. More importantly, given the reported size of the gap between the costs of growing and processing in Australia and the import price of FCOJ, a very large rise in the price of domestically manufactured FCOJ would be needed to make growing citrus for processing into FCOJ profitable.

Third, the income of most citrus growers is largely dependent on the profitability of non-citrus agricultural activities and off-farm income. The income from these sources would be unaffected by an increase in the tariff (or a restrictive import quota) on FCOJ, whether applied as a result of a safeguards investigation or otherwise.

Moreover, an increase in the tariff on FCOJ would be a very blunt way of providing assistance to the needier sections of the citrus growing industry, because it would assist any growers who supply citrus for processing into FCOJ, including those that are currently profitable (after taking into account income from other sources) as well as those that are experiencing low incomes.

In responding to the position paper, a number of participants considered that the Commission had placed too little emphasis on the effects of imported FCOJ and too much emphasis on the benefits of exporting. The Citrus Board of South Australia stated:

This position paper largely focuses on the export industry and lacks focus on the effects of imports on the industry... (trans., p. 394)

Riverina Citrus made a similar comment:

The major areas of concern to Riverina Citrus growers include:

- ...The focus of the Commission on the supposed benefits of exports and a complete lack of focus on the effects of imports on the local industry. (sub. DR132, p. 3)

Although it is true that the quantity of imported FCOJ has increased, it is low in value. By focussing on the higher valued exports of fresh fruit and fresh juice, the industry has been able to increase its real value of production. The Commission considers that this evidence demonstrates that focussing on exports offers the industry a better strategy for future prosperity than one that focuses on reducing imports of FCOJ.

Increasing the tariff or imposing a quota would create incentives that work against this change. It would also delay the inevitable further restructuring of the industry

by reducing the incentive for growers to focus on supplying the fresh juice and fresh fruit markets.

The limitations of an increase in the tariff were also noted by Berri Limited, which argued that:

... tariffs/quotas are not the right solution to making the Australian Citrus Industry more sustainable and competitive. Tariffs will not encourage focus on Australia's true competitive advantage in fresh fruit and fresh juice markets nor will they overcome the tremendous cost advantage the world's major concentrate producers have achieved.

Instead, tariffs will reduce Australia's ability to compete internationally and increase local inefficiencies, potentially undoing much of the hard work that has been achieved over recent years. (sub. 80, p. 3)

The Australasian Soft Drink Association also argued that a tariff would have an adverse impact on the competitiveness of processors of citrus-based fruit drinks:

... [we] strongly object to the imposition of tariffs, import quotas or other artificial means to protect the industry that would ultimately lead to a reduction in the competitiveness of citrus based non-alcoholic beverages and ultimately a reduction in demand for citrus juices. (sub. 73, p. 4)

Any substantial increase in the tariff on imported FCOJ also would run the risk of invoking a reaction from Brazil. The value of Australia's total exports to Brazil is significantly higher than the value of Australia's imports of Brazilian FCOJ. Such a tariff increase could also jeopardise Australia's broader objectives in the current WTO round of multilateral trade negotiations. These limitations were acknowledged by the main representative body of citrus growers (Australian Citrus Growers Inc.), which was why it called instead for an industry-specific package of adjustment assistance for citrus growers. It stated:

Under the WTO agreement safeguards actions can be a tariff or quota against imports. The citrus industry understands the difficulties associated with providing assistance in these forms. It appreciates that border protection would send the wrong signals to other countries (especially Brazil) about Australia's endeavours to reduce agricultural protection in the forthcoming WTO Round and it is likely to involve retaliation. A tailor-made direct adjustment assistance package would avoid these difficulties. (sub. 72, p. 37)

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A temporary increase in barriers against imports of frozen concentrate orange juice would be unlikely to alleviate the financial difficulty being experienced by some growers. Further, it would be a poorly targeted instrument, assisting all growers, rather than only those experiencing financial problems.

Industry-specific adjustment assistance

As outlined in chapter 6, the Commission considers that the case for additional assistance on the grounds of equity and fairness is likely to be strongest where changes in the economic environment:

- impose a clear and sizeable burden on a specific group in the community (particularly if the affected group is relatively disadvantaged);
- deliver benefits mainly to relatively advantaged groups in the community; and/or
- are largely unanticipated (that is, they occur with limited notice) and involve material changes to a well defined and defensible ‘property right’.

The Commission’s assessment, based on the available evidence presented in this report, is that the citrus industry does not meet these criteria. Growers selling their citrus to fresh fruit markets in Australia and overseas — where one half of Australia’s orange production is sold — are likely to be profitable. This appears to be a generally accepted view. It also appears to be the case, on the basis of evidence presented to the inquiry, that two-thirds of citrus growers have sufficient income to be able to finance development of their farms. The other one-third appear to be small producers of citrus who, in general, are more reliant on income from other agricultural products and off-farm income. The Riverina region is probably less profitable because of its greater reliance on valencias used mainly for processing into juice.

Given these circumstances, it is difficult to conclude that because a household is involved in citrus growing, it belongs to a clearly defined, financially disadvantaged group. An assessment of whether that is so requires careful consideration of many factors, such as whether farmers are experiencing low cash incomes but own substantial assets, the non-family basis of reporting farm income, the farm household attaching non-pecuniary benefits to the farming way of life, the incidental benefits to households owning farms (such as the use of the farm vehicle for personal travel) and the variability of farm income (Musgrave 1990, p. 250). Furthermore, such an assessment should take into account whether the disadvantaged group has access to other general forms of assistance designed to assist farmers with low income and poor profitability.

The available evidence does not indicate that when these factors are taken into account, the burden of structural change being experienced by many citrus growers is different from that of other primary producers.

Many growers have adapted well to market developments and are profitable. Typically, they understand better the changing requirements of their customers, and

have the capacity to invest in varieties of citrus or other horticultural products that are in greatest demand.

There are also many who have found it more difficult to adapt. They tend to be those who have a higher proportion of their production processed into FCOJ. Many have small orchards and limited resources, and need to seek income from off-farm sources in order to maintain their unprofitable orchards. Where these circumstances reflect informed personal choices, there seems to be a weak case, at best, for support by way of special provision of assistance to citrus growers.

Further, as in the case of an increased tariff on FCOJ, the diverse nature and performance of many of the farms growing citrus increase the risk that a citrus-specific assistance package would fail to focus assistance only on those genuinely in need.

This problem led the Australian Citrus Growers Inc. to ask whether it would not be possible to focus specific assistance on those in greatest need:

Really my question was surely we can look at some sort of assistance to those growers that are genuinely in need, or need some adjustment assistance, in a way that can provide benefits to citrus growers, even though they may have wine grapes or prunes on their property, or whatever. (trans., p. 161)

I think what we would look at are those growers, like you said, that are largely dependent on citrus for their income ... to be able to access a specific adjustment program. That could easily be done by putting that in the conditions of accessibility. Then you would have to look at, obviously, the mix of varieties they have on their properties, the technology they have on their properties and their financial situation. I really think a lot of those growers that do rely solely on citrus, particularly valencia oranges, are finding it very hard to retain profitability to do that readjustment or to exit the industry. I think that would benefit all of the industry if we could get a lot of those very small patches of citrus that are not really economic any more, and not very well looked after, removed out of the ground, and some assistance provided to those people just to give them a little bit of a push to the right direction. (trans., p. 163)

The Commission acknowledges that there are some growers who are largely reliant on production of low-value citrus crops and experiencing financial hardship. This in itself does not mean, however, that citrus-specific adjustment assistance is the best approach.

Agricultural assistance programs that are already available seem capable of addressing the assistance needs of such growers. Such assistance should target the household or owner rather than the financial performance of a specific commodity. In assessing the need for assistance, the Commission considers — for the reasons outlined in this chapter and in chapter 6 — that the farmer's total financial position should be assessed rather than just the citrus component. The Commission considers

that the existing and recent adjustment assistance programs have been effective in doing this.

The relatively large size of the regional economies in and around the main citrus-growing regions of Griffith and Mildura also facilitates access to other sources of income. By and large, there are many other industries, both agricultural and non-agricultural, that are important within these broad regions (box 9.1), although citrus may be more significant in particular local communities.

Box 9.1 Citrus in the Griffith and Mildura regions

Griffith and Mildura are two of the main citrus-growing areas in Australia. Within these regions employment occurs in a range of industries, including agriculture. In Griffith, agriculture, fisheries and forestry accounted for 22 per cent of employment in 1996. Within agriculture, citrus accounted for around 19 per cent of the value of agricultural commodities produced in 1999-2000.

Similarly, agriculture, fisheries and forestry accounted for around 20 per cent of the workforce in Mildura in 1996. The citrus industry accounted for around 14 per cent of the value of agriculture production in 1999-2000.

Source: Griffith City Council (2001); ABS (*Regional Statistics, Victoria*, Cat. no. 1314.2); ABS unpublished production statistics.

A number of submissions commented on the precedent for government providing direct assistance to growers for structural adjustment. For example the Murray Valley Citrus Marketing Board stated:

There is also a case that citrus should be treated equitably with other industries who have been deregulated such as the dairy industry. (sub. 75, p. 24)

The Citrus Board of South Australia made the same point:

In recent years the Commonwealth Government has provided substantial financial assistance to a range of industries with immediate structural adjustment needs. Prominent among these have been packages to the dairy, pork and sugar industries. (sub. 78, p. 9)

The relevance of such precedents is not always clear-cut. For example, in the case of the dairy industry, the circumstances differed from those that are being experienced by the citrus industry. Although assistance to the manufacturing milk sector had been gradually reduced over a long period, the deregulation of the market milk sector occurred quickly. Furthermore, market milk deregulation involved the withdrawal of quotas which gave a right to supply market milk at regulated prices. This resulted in a very substantial decrease in the effective rate of assistance to farmers supplying market milk from its very high level of 200 per cent. The

substantial and relatively quick nature of market milk deregulation was part of the Government's rationale for the adjustment assistance to the dairy industry. That assistance is being financed by consumers — who benefited from deregulation — through a tax of 11 cents per litre of milk for an estimated nine years.

Although the citrus industry did face a reduction in tariffs between 1989 and 1996, these reductions were significantly smaller, and implemented over a longer period, than was the case for market milk deregulation. Phased reductions in tariffs are commonly used as a means of easing adjustment pressures. Furthermore, the citrus industry was given industry-specific assistance in the form of the \$8.4 million Citrus Market Diversification Program. In addition, the citrus industry in the Murrumbidgee Irrigation Area, Sunraysia and Riverland regions have received assistance under the Rural Partnership Program.

Assistance that focuses narrowly on specific commodities has the potential to distort decisions about competing investments (such as citrus in preference to other agricultural products). It can also result in inequities between similarly placed farms in different sectors, and delay inevitable adjustment. The cost of administering such assistance are likely to be high where program administrators are required to evaluate which horticultural activities and which growers are likely to be viable.

Where possible, it is preferable to rely on programs that are generally available to those who meet the eligibility criteria, regardless of the sector.

FINDING 9.2

Assistance that focuses narrowly on particular commodities, such as citrus, can distort farm business decisions, with possible adverse effects on the efficiency of the sector. It can also result in inequities, delay inevitable adjustment, and be costly to administer.

The Commission's preferred approach for providing adjustment assistance

The general assistance programs available to citrus growers provide assistance to facilitate adjustment and ease transitional pressures. They address a number of problems faced by the citrus industry, and by the agriculture sector more broadly (see chapter 6). Specifically, the programs:

- provide support to help farmers make informed decisions about their business prospects (for example, FarmBis, the Rural Partnership Program and Rural Financial Counselling Service provide support for management training and professional advice and counselling on the financial viability of farm

enterprises), support to identify ways to improve viability, and support for advice on life choices;

- provide temporary income support and assistance to exit agriculture where businesses are not viable, before their farm assets are severely depleted — giving owners greater control over their future (for example, Farm Help and the Rural Partnership Program); and
- provide support to deal with the tax implications of variability in farm income (tax averaging and the Farm Management Deposit scheme).

Although some concerns have been raised about the funding for these programs, there is no indication that growers eligible for such assistance have not received it on account of inadequate funding. If such evidence were to emerge — for example, among growers in the Riverina — governments would presumably reconsider the budgetary allocation for this assistance. The Commission notes that the MIA PowerPACT program presently has a request for additional funding with the Commonwealth and New South Wales Governments.

These generally available assistance measures, together with the social security and labour market programs, are preferable to specific assistance because they are more likely to:

- treat individuals in similar circumstances (citrus growers, mixed farm citrus growers and non-citrus growers) equally;
- target assistance to those in genuine need whatever the cause (whether low citrus profitability or poor profitability in other agricultural enterprises);
- address the net effects of varying influences (taking account of the total financial situation); and
- support individuals and families rather than a particular industry or activity such as citrus growing or valencia growing.

The Commission considers that generally available assistance measures are a more efficient and equitable means of achieving the Government's economic and social goals in these regions than citrus-specific adjustment programs.

FINDING 9.3

Given the diverse nature and financial performance of citrus growing enterprises, generally available industry assistance measures are superior to further industry-specific assistance, including a formal safeguards investigation, in addressing adjustment problems faced by some citrus growers.

9.2 Impediments to industry performance

Although the Commission does not consider that additional specific adjustment assistance for the citrus industry should be provided, there are some impediments to the industry's performance (set out in chapters 7 and 8) which should be addressed. In respect of impediments identified by participants, the Commission considers that the following steps are matters of priority.

- Use of the current round of WTO multilateral trade negotiations by the Government to seek further reductions in overseas trade barriers faced by the citrus industry.
- A review of the effectiveness of the processes used by Biosecurity Australia and the Horticultural Industry Market Access Committee for setting priorities for market access discussions, in order to ensure that the most commercial access priorities are pursued.
- Clarification of the roles and responsibilities of Biosecurity Australia and the Horticultural Industry Market Access Committee as a means of improving the flow of information on the status of market access discussions to interested parties in the industry.
- Use of export control powers only in circumstances where an independent review, based on clear criteria, demonstrates that the benefits exceed the costs, and that these benefits cannot be achieved without the use of the powers.
- Recognition by Commonwealth and State governments of the impact of compliance costs on the citrus and other horticulture industries when developing policies relating to superannuation, workers' compensation and immigration.

9.3 Outlook

The outlook for the industry as a whole and for a large proportion of citrus growers, packers and processors engaged in the domestic and export markets for fresh fruit and fresh juice is generally perceived to be favourable. Most of Australia's citrus production is sold now in those markets, where the prevailing price levels are substantially above the price of FCOJ imports. The average prices received for these products also appear to be broadly in line with the total costs of production in Australia.

Australia does not appear to have a competitive edge in the supply of fruit for processing into FCOJ in terms of price and quality. Some fruit may be supplied for processing into FCOJ, but this is likely to be the fruit unsuitable for, or excess to the requirements of, fresh juice and fresh fruit markets. In normal years this residual

supply for processing into FCOJ is likely to be small, and is currently about 15 per cent of total production. In high yield years, however, this proportion can be higher.

In order to compete successfully in the fresh fruit and fresh juice markets, growers need to continue to adopt production methods that raise the overall quality of fruit. Growers need to be well in touch with the requirements of consumers and many farms may need to be larger in size and more productive to be economically viable in the more competitive environment.

It is likely that the processing sector will continue to look to new ways of securing the necessary quantity and quality of fruit for fresh juice — such as contracts with growers covering both quantity and price, and direct ownership of orchards. The pressure for this arises from the switch by growers away from valencia oranges (the preferred juicing variety) to navel oranges and mandarins (the preferred fresh fruit varieties), as they focus increasingly on supplying the fresh fruit market. This may lead to higher average prices for oranges supplied for the juice market.

Although the future of the industry appears to be in fresh fruit and fresh juice, the Australian industry will need to continue to work hard in these markets. There is likely to be emerging competition in export and domestic markets from growth in production by other countries (particularly other southern hemisphere producers) and technological developments which lower transport costs and extend the life of ‘fresh’ juice. Exchange rate movements will also have important effects on exporters.

Overall, the Australian industry has clear potential to expand by continuing to exploit new opportunities in domestic and export markets. With adjustment to changing market circumstances, there is reason to be optimistic about the industry’s future.

A Conduct of the inquiry

This appendix outlines the inquiry process and lists the organisations and individuals that have participated.

As in all of its inquiries, the Commission aims to improve the overall performance of the Australian economy. It has regard to the established economic, social, environmental and regional development objectives of governments. The full terms of reference of this inquiry are on page IV.

Following receipt of the terms of reference on 26 September 2001, the Commission placed a notice in the press inviting public participation in the inquiry and released an issues paper to assist participants in preparing their submissions.

Following a request by the Australian Citrus Growers Inc. and the Queensland Fruit and Vegetable Growers for an extension of the due date for initial submissions, and the unexpected illness of the Presiding Commissioner initially appointed to the inquiry, the Commission extended the deadline for submissions to 7 December 2001 and deferred the release date of the position paper to February 2002. To allow participants adequate time to prepare further submissions in response to the position paper and to attend the public hearings, the Commission requested a short extension to the reporting date for the inquiry. The Government granted the request and the completion date for the final report was extended to 30 April 2002.

The Commission received 87 submissions before the release of the position paper in February 2002. A further 46 were received following the release of the position paper (a total of 133). Those who made submissions are listed in section A.1.

The Commission also held informal discussions in the ACT, New South Wales, Queensland, South Australia and Victoria with the organisations and Commonwealth Government departments and agencies listed in section A.2.

In March 2002, the Commission held public hearings in Mildura, Griffith, Renmark and Melbourne. Participants in the public hearings are listed in Section A.3. Submissions and transcripts of the hearings are publicly available.

A.1 List of submissions

The following table lists all submissions received over the course of the inquiry.

Table A.1 List of submissions^a

| <i>Participant</i> | <i>Submission number</i> |
|---|--------------------------|
| Alampi, Sam | 32 |
| Amato, Dominic | 30 |
| Andrew, Kent | DR106 |
| Armstrong, Ian | DR107 |
| Auscitrus | 12 |
| Australasian Soft Drink Association Ltd | 73 |
| Australian Fruit Juice Association | DR113 |
| Australian Citrus Growers Inc. | 72, DR99 |
| Australian Citrus Industry Council Inc. | DR105 |
| Australian Food and Grocery Council | 83 |
| Australian Fruit Juice Association | 76 |
| Australian Horticultural Exporters Association Inc. | 74, DR116# |
| Bavaresco, Glen | 66 |
| Berri Limited | 80*, DR104 |
| Bertolla, Belinda | 16 |
| BGP International Pty Ltd | 40 |
| Bowditch, Sandy | 20 |
| Bugno, Garry | 69 |
| CIF Trading Company | 3 |
| Citrus Board of South Australia | 78, DR130# |
| Citrus Growers of South Australia Inc. | 79, DR109 |
| Citrus Reform Association Inc. | 61#, DR95 |
| City Engineering Services | 11 |
| Cobram and District Citrus Growers Association | 43# |
| Coles Myer Ltd | 85* |
| Costa, Vince | 52 |
| Cristofaro, Agostino | 27 |
| D'Aquino, Joe | 28 |
| Dametto, Adrian | 24 |
| Davidson, Carol | 50 |
| Davidson, Peter | 57 |
| Department of Agriculture, Fisheries & Forestry — Australia | DR94, DR125 |
| Department of Primary Industries (Queensland) | DR128 |
| Doecke, Mark | 41 |
| E.J.T. Packers Pty Ltd | DR89 |
| Farnsworth, Robert | 77 |
| Food and Beverages Importers Association | 64, DR122 |
| Garbin, R. E. and E. T. | 68 |

(Continued next page)

Table A.1 (continued)

| <i>Participant</i> | <i>Submission number</i> |
|--|--------------------------|
| Giacca, A. and A. | 8 |
| Golden Circle Limited | DR123 |
| Griffith and District Citrus Growers' Association Inc. | 62 |
| Grove Fruit Juice Pty Ltd | DR117 |
| Hillyer, P. J. | 17, DR112 |
| Horticulture Australia Limited | DR102*# |
| Ianelli, Vince | 29, 31 |
| I. K. Caldwell | 4 |
| Interaust Foods Pty Ltd | 65# |
| J.G. Benham and Sons | 86*# |
| Kangara Foods | DR114 |
| Keenan Partners | DR100 |
| Leeton District Citrus Growers' Association | 58 |
| Leeton Shire Council | 23 |
| Madaffari, Frank | 18 |
| Mancini, Domenic | 70 |
| Mancini, Nick | 53 |
| Marrows Estates Pty Ltd | 1, 51#, DR119#, DR126 |
| Mercuri, Frank and Domenic | 34 |
| MIA PowerPACT | 71, DR118 |
| Mid-Murray Citrus Growers Inc. | 9, DR93 |
| Mildura Fruit Company | DR103 |
| Mills, Brian | 84 |
| Minchin, Graham | 14 |
| Minister for Agriculture, Forestry and Fisheries (Western Australia) | DR133 |
| Morris, John | 49 |
| Morris, Peter | 35 |
| Morris, Phyllis | 42 |
| Muirhead, Dr Warren | 2 |
| Murray Valley Citrus Marketing Board | 75, DR98 |
| Murrumbidgee Irrigation Limited | 15 |
| Nardi, Anthony | 25 |
| Nardi, George and Maria | 38 |
| Nardi, George | 33 |
| Nardi, Nat | 26 |
| Nardi, V. A. & F. | 13 |
| National Registration Authority | DR97 |
| Newton, Garry | 7 |
| Northern Territory Citrus Growers Association Inc. | DR121 |
| NSW Agriculture | 87 |
| Pacific Century Production Pty Ltd | 54* |
| Papageorgiou, Jack | DR108 |
| Pasin, Joe | 6 |
| Pavese Citrus Pty Ltd | 63 |

(Continued next page)

Table A.1 (continued)

| <i>Participant</i> | <i>Submission number</i> |
|--|--------------------------|
| Piccolo, M. | 44 |
| Pompeani, Dennis | 19 |
| Queensland Fruit and Vegetable Growers Ltd | 81 ,DR127 |
| Restpath Pty Ltd | 59 |
| Richards, Keith | DR92, DR111 |
| Riverina Citrus | 45, DR115, DR132# |
| Riverland Development Corporation | DR129 |
| Riversun Export Pty Ltd | DR110 |
| Sartor, Louis | 60 |
| Scali, Frank | 36 |
| Scott, Frank | 10 |
| Shand, Bill | DR120 |
| South Australian Government | 82 |
| Sunraysia Citrus Growers Inc. | DR101, DR124# |
| Sunraysia Rural Counselling Service Inc. | DR90 |
| Sunrise 21 | DR91 |
| Tayler, David | 67*, DR131* |
| Triaca, John and Marisa | 21 |
| Villata, David | 56 |
| Waikmor Proprietors | 22, DR88 |
| Watts, Michael and Julie | 55 |
| Whyte, John | 37, DR96 |
| Xerri Brooks Pty Ltd | 5 |
| Zalunardo, A. | 47 |
| Zalunardo, D. and K. | 46 |
| Zalunardo, L. and T. | 48 |
| Zappala, Frank | 39 |

^a An asterisk (*) indicates that the submission contains confidential material not available to the public. A hash (#) indicates that the submission includes attachments.

A.2 Visits

Informal discussions were held with the following interested parties.

ACT

- Aurora Practical Solutions
- Department Agriculture Fisheries and Forestry — Australia (including Biosecurity Australia)
- Department of Foreign Affairs and Trade
- NSW Agriculture
- NSW Department of State and Regional Development

New South Wales

- Australian Citrus Industry Council Inc.
- Blacker, William
- Cappello, Otto
- Davidson, Peter
- Excello Co-operative Limited (Golden Circle Limited)
- Griffith and District Citrus Growers' Association Inc.
- Mancini, Domenic
- Revelant, Lou
- Riverina Citrus

Queensland

- Bugs for Bugs IPM Insectory
- Central Burnett Fruit Processors
- Golden Mile Farm
- Jenkins Orchard
- Trotts Orchard

South Australia

- Yandilla Park

Victoria

- Australian Citrus Growers Inc.
- Berri Limited
- BGP International Pty Ltd
- Citrus Board of South Australia
- Cock, Kevin
- Coles Myer Ltd
- Interaust Foods Pty Ltd
- Mildura Fruit Company
- Mildura Fruit Juices Australia Pty Ltd

- Murray Valley Citrus Marketing Board
- NSW Agriculture
- Original Juice Co.
- Pacific Beverages
- Papageorgiou, Jack
- Sunraysia Citrus Growers Inc.
- Sunrise 21

A.3 Public hearings

Public hearings were held in Griffith, Mildura, Renmark and Melbourne during March 2002. Those who appeared are listed in table A.2.

Table A.2 **Public hearings**

| <i>Date</i> | <i>Participant</i> | <i>Transcript page no.</i> |
|-----------------|---|----------------------------|
| Griffith | Riverina Citrus | 2–47 |
| 11 March 2002 | MIA PowerPACT and MIA Council of Horticultural Associations | 48–67 |
| | Tony Catanzariti and Matthew Nugan | 68–81 |
| | David Taylor | 82–91 |
| | Riverina Citrus | 92–120 |
| | Don Centofanti | 121–126 |
| | Susan Brighenti | 127–133 |
| | Adrian Dametto | 134–138 |
| Mildura | Australian Citrus Growers Inc. | 140–168 |
| 13 March 2002 | Dudley Marrows | 169–176 |
| | Murray Valley Citrus Marketing Board | 177–206 |
| | Mid-Murray Citrus Growers Inc. | 207–222 |
| | Horticulture Australia Limited | 223–251 |
| | EJT Packers | 252–262 |
| | John Whyte | 263–287 |
| Mildura | Mildura Fruit Company | 289–310 |
| 14 March 2002 | Sunraysia Citrus Growers Inc. | 311–334 |
| | Dudley Marrows | 335 |

(Continued next page)

Table A.2 (continued)

| <i>Date</i> | <i>Participant</i> | <i>Transcript page no.</i> |
|------------------|---|----------------------------|
| Renmark | Riversun Export Pty Ltd | 337–361 |
| 15 March 2002 | Citrus Reform Association | 362–376 |
| | Citrus Growers of South Australia | 377–393 |
| | Citrus Board of South Australia | 394–412 |
| | Jack Papageorgiou | 413–419 |
| | Kent Andrew | 420–429 |
| | Ian Armstrong | 430–437 |
| Melbourne | Australian Horticultural Exporters Association | 439–463 |
| 20 March 2002 | Berri Limited and Australia Fruit Juice Association | 464–481 |
| | Biosecurity Australia | 482–497 |
| | BGP International | 498–508 |
| | Murray Valley Citrus Marketing Board | 509–522 |
| | Australian Citrus Growers Inc. | 523–524 |
| | Riversun Export | 525–532 |
| | Mid-Murray Citrus Growers Inc. | 533–541 |

B Productivity Commission estimates of local (farmgate) unit values

This appendix outlines the method used by the Commission to adjust the ABS estimates of local value, presented in chapter 2.

The ABS estimates local (or farmgate) value as the estimated gross value of production, less some of the marketing costs incurred between the point of production and sale (ABS 2001a). These marketing costs include transport, storage, handling, container cost, insurance, commission and the cost of materials used in packing.

However, the ABS makes two assumptions regarding marketing costs which make their definition inconsistent with participants' interpretation of farmgate value.

- First, it assumes that farmers pack their own fruit. This means that the estimate of farmgate value includes the value added component of packing cost (the cost of labour and capital used in packing).
- Second, it assumes that no marketing costs are associated with fruit going to processing. This means there is no deduction for any transport costs for fruit delivered to processors.

The Commission has adjusted the ABS estimates of local values to take these factors into account. For illustrative purposes, the adjustments in this appendix are reported only for the local value in 1997-98.

B.1 Estimation of value added in packing fresh fruit

The following method has been applied to deduct the value added in packing from the ABS estimate of local value. The method involves three steps.

1. Estimate the total cost per tonne of packing fruit.
2. Estimate the value added of packing fruit by deducting the estimated cost of materials used from the total cost of packing (1).
3. Estimate the total value added of packing fruit by multiplying the packing value added per tonne (2) by the tonnes of fruit packed.

According to Retailworks (2001), fresh oranges are often packed in one of two ways — 18 kilogram cartons or 3 kilogram bags.

According to Retailworks (2001, tables 2 and 3), the cost of packing fruit into cartons ranges between \$330 and \$390 per tonne, and the cost of packing fruit into 3 kilogram bags ranges between \$83 and \$100 dollars per tonne (table B.1).

The cost of materials used in packing is assumed to be the cost of the carton or bag. The cost of a carton for fresh fruit packed to domestic sales ranges from \$1.20–1.30 or around \$69 per tonne. The cost of a carton for fresh fruit packed for export markets is around \$1.60, or approximately \$89 per tonne. The cost of a 3 kilogram bag is 5 cents per bag or around \$17 per tonne (table B.1). Value added per tonne is then calculated as the total cost of packing less the cost of materials (table B.1)

Table B.1 Adjustment to packing value added, 1997-98

| | <i>Total packing costs</i> | <i>Materials costs</i> | <i>Value added</i> | <i>Production</i> | <i>Total value added</i> |
|--------------------------|----------------------------|------------------------|--------------------|-------------------|--------------------------|
| | \$/t | \$/t | \$/t | kt | \$'000 |
| <i>Valencias</i> | | | | | |
| Fresh exports (cartons) | 330–390 (average 360) | 89 | 271 | 37 | 10 027 |
| Fresh domestic Cartons | 330–390 (average 360) | 69 | 291 | 22 | 6 402 |
| 3 kilogram bags | 83–100 (average 92) | 17 | 75 | 52 | 3 900 |
| Total value added | | | | | 20 329 |
| <i>Navels</i> | | | | | |
| Fresh exports (cartons) | 330–390 (average 360) | 89 | 271 | 65 | 17 615 |
| Fresh domestic Cartons | 330–390 (average 360) | 69 | 291 | 52 | 15 132 |
| 3 kilogram bags | 83–100 (average 92) | 17 | 75 | 22 | 1 650 |
| Total value added | | | | | 34 397 |

Source: ABS unpublished production and value data; Packer A (pers. comm., 28 March 2002); Retailworks (2001).

Retailworks estimated that 30 per cent of valencias and 70 per cent of navels sold in the domestic market are packed in cartons, with the remainder packed in 3 kilogram bags. All fruit exported is packed in cartons. Applying these proportions to the market distribution data for 1997-98 (see chapter 2, table 2.2) gives the amount of production packed into cartons and bags (table B.1).

Multiplying the value added by the level of production in 1997-98 gives the total value added for packing of navels and valencias (table B.1).

B.2 Estimation of transport cost to processors

The Australian Citrus Growers Inc., NSW Agriculture, the Original Juice Company and other processors and packers provided the Commission with estimates of transport costs from growers to processing plants (table B.2).

Table B.2 **Estimates of transport cost from growers to processors**
Dollars per tonne

| <i>Destination</i> | <i>Region</i> | <i>Cost</i> |
|--------------------|---------------------------------------|-------------|
| Local processor | Riverland | 10–20 |
| Local processor | Riverina | 8–10 |
| Local processor | Riverina | 8 |
| Local processor | Riverina | 4–17 |
| Local processor | Riverina | 3.50 |
| Melbourne | Riverina | 40–60 |
| Melbourne | Riverina, Riverland and Murray Valley | 35–45 |
| Melbourne | Murray Valley | 20–30 |
| Brisbane | Riverina | 60–80 |

Source: ACG (pers. comm., 26 March 2002); NSW Agriculture (pers. comm., 14 March 2002); Original Juice Company (pers. comm., 2 April 2002); Packer A (pers. comm., 9 April 2002); Packer B (pers. comm., 10 April 2002).

The estimates vary considerably both within and between regions and depend on the location of the processing plant relative to the grower. In some cases these costs may be small — for example, farmers may use a tractor to take a bin of fruit to a local processor. In addition, some contractual arrangements may mean that the cost is borne by the processor.

The Original Juice Company, which processes around a quarter of the national valencia crop, reported that the price it pays to growers is a delivered price, with the grower paying for the cost of transport (pers. comm., 2 April 2002).

Berri Limited also stated that the price paid to growers is a delivered price:

If you look at the major way that fruit moves, navels or valencias ... and it varies from area to area, but in most cases in the Riverland and Sunraysia the fruit would go to a packing shed, in which case it would be delivered under whatever arrangements the packing shed has, and then the off-run or the non-packed fruit would then go on to a processing plant. The arrangements that Berri has at the moment for valencia is that it's a delivered price.

So you could argue whichever way you like in terms, but that pricing has been structured to include the freight. There have been some other arrangements where we have paid freight from either the shed door or the farmgate, but our current

arrangements are that it's a delivered price, which includes an average freighting price from the farm. (trans., p. 472)

Therefore, the delivered price paid by Berri Limited — which is assumed to be included in the wholesale value estimate reported by processors to the ABS (see chapter 2, box 2.2) — includes a transport cost borne by growers.

The Commission chose a value of \$20 per tonne as being representative of the average cost of transporting fruit to processors. This is based on the assumption that approximately 70 per cent of fruit is processed locally, and incurs an average transport cost of \$10 per tonne. The remainder is assumed to be processed further afield, with an average transport cost of \$43 per tonne.

Multiplying the cost of transport (\$20 per tonne) by the quantity of navels and valencias processed in 1997-98 — 46 kt and 200 kt, respectively — gives the total transport cost for navels of \$920 000 and for valencias of \$4 000 000 (table B.3).

B.3 Adjustment to local value

Table B.3 shows how the original ABS local value for each orange variety has been adjusted by deducting packing value added and transport costs for processing.

Table B.3 **PC adjusted estimates of local (farmgate) value, navels and valencias, 1997-98**

| | <i>Original ABS local value</i> | <i>Packing value added</i> | <i>Transport cost to processing</i> | <i>PC adjusted values^a</i> | |
|---------------------------------|-------------------------------------|--------------------------------|---|---------------------------------------|-------------------------------|
| | | | | <i>Total</i> | <i>Average unit value</i> |
| | \$ | \$ | \$ | \$ | \$/t |
| <i>PC estimate</i> | | | | | |
| Navel | 119 478 504 | 34 397 000 | 920 000 | 84 161 504 | 455 |
| Valencia | 74 215 576 | 20 329 000 | 4 000 000 | 49 886 576 | 159 |
| <i>Sensitivity analysis</i> | | | | | |
| <i>Transport cost of \$15/t</i> | | | | | |
| Navel | 119 478 504 | 34 397 000 | 690 000 | 84 391 504 | 456 |
| Valencia | 74 215 576 | 20 329 000 | 3 000 000 | 50 886 576 | 163 |
| <i>Transport cost of \$25/t</i> | | | | | |
| Navel | 119 478 504 | 34 397 000 | 1 150 000 | 83 931 504 | 454 |
| Valencia | 74 215 576 | 20 329 000 | 5 000 000 | 48 886 576 | 156 |

^a Using total production of 185 kt and 312 kt for navels and valencias, respectively.

Source: ABS unpublished production and value data; Table B.1; Table B.2.

The Commission has included a sensitivity analysis of the impact of variations in transport costs on the estimates of local unit value, assuming transport costs of \$15

and \$25 per tonne (see table B.3). These estimates show that that a \$5 increase (decrease) in the assumed cost of transport leads to a decrease (increase) of around \$1 and \$3–4 per tonne in the farmgate value of navels and valencias, respectively (table B.3).

C Cost of production estimates

This appendix documents the cost of production estimates of growing citrus in three regions of Australia, using information from:

- NSW Agriculture — for the Sunraysia and Murrumbidgee Irrigation Area (MIA) regions; and
- Primary Industries and Resources South Australia (PIRSA) — for South Australia.

C.1 NSW Agriculture

NSW Agriculture provided (draft) information on the expected cash flows of growing washington navels and mandarins in the Sunraysia and MIA regions over a 21 year period. The department's estimates were based on industry consultation and experience. According to NSW Agriculture, the budgets are:

... intended to provide a guide to relative profitability and an indication of management operations involved in different cropping enterprises. (1997, p. 5)

The department went on to warn:

The degree to which these budgets reflect actual crop returns will be influenced not only by general factors common to all farms, such as prices and seasonal conditions, but also by the individual farm characteristics such as soil type, crop rotation, management, etc.

Consequently, it is strongly recommended that the budgets be used as a **GUIDE ONLY** and should be changed to take account of movements in crop prices, changes in seasonal conditions, and individual farm characteristics. (1997, pp. 5–6)

Tables C.1 to C.4 present the expected cash flows for each region and variety.

Table C.1 Draft cash flow budget for washington navels planted in the MIA region^a

| | Unit | Years | | | | | | | | | | |
|-------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10–20 |
| Yield ^b | t/ha | – | – | – | 1 | 6 | 16 | 18 | 26 | 31 | 35 | 35 |
| Price | \$/t | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 |
| Total income | \$/ha | – | – | – | 350 | 2 100 | 5 600 | 6 300 | 9 100 | 10 850 | 12 250 | 12 250 |
| Site preparation ^c | \$/ha | 9 009 | | | | | | | | | | |
| Planting | \$/ha | – | 5 803 | | | | | | | | | |
| Irrigation ^d | \$/ha | 116 | 303 | 350 | 396 | 396 | 443 | 443 | 490 | 537 | 583 | 583 |
| Herbicide | \$/ha | – | 66 | 66 | 66 | 129 | 129 | 129 | 129 | 129 | 129 | 96 |
| Fertiliser | \$/ha | – | 152 | 152 | 152 | 382 | 382 | 382 | 411 | 411 | 411 | 198 |
| Fungicides | \$/ha | – | – | – | – | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Insecticides | \$/ha | – | 53 | 53 | 53 | 192 | 192 | 192 | 260 | 260 | 260 | 327 |
| Crop management sprays ^e | \$/ha | – | – | – | – | – | – | – | 488 | 488 | 488 | 394 |
| Pruning | \$/ha | – | 133 | 133 | 133 | 665 | 665 | 665 | 1 382 | 1 382 | 1 382 | 1 457 |
| Crop management ^f | \$/ha | – | – | – | – | 290 | 290 | 290 | 290 | 290 | 290 | 689 |
| Tractor ^g | \$/ha | – | 809 | 809 | 815 | 588 | 649 | 662 | 784 | 815 | 839 | 864 |
| Contract harvesting | \$/ha | – | – | – | 64 | 384 | 1 024 | 1 152 | 1 664 | 1 984 | 2 240 | 2 240 |
| Harvesting levies | \$/ha | – | – | – | 6 | 35 | 92 | 104 | 150 | 178 | 201 | 201 |
| Cartage | \$/ha | – | – | – | 4 | 21 | 56 | 63 | 91 | 109 | 123 | 123 |
| Total cost | \$/ha | 9 125 | 7 318 | 1 562 | 1 688 | 3 085 | 3 925 | 4 084 | 6 141 | 6 585 | 6 949 | 7 175 |
| Annual cash surplus/deficit | \$/ha | -9 125 | -7 318 | -1 562 | -1 338 | -985 | 1 675 | 2 216 | 2 959 | 4 265 | 5 301 | 5 075 |
| Water usage | ML/ha | – | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 10 | 10 |

^a Provides information on the expected cash flows over a 21 year investment for washington navels planted in the MIA region on a one hectare property. ^b Assumes a tree density of 550 trees per hectare. ^c Made up of land preparation (\$2509) (including the cost of ripping, levelling, gypsum, wind breaks) and irrigation system (\$6500) (micro spray irrigation system). ^d Irrigation costs are fixed levies per hectare (\$116) plus power, water and levies per megalitre. ^e Crop management sprays include 'G.A. and Wetter', cling spray and ethrel. ^f Crop management is the cost of leaf analysis, pest monitoring and hand fruit thinning. ^g The running cost of the tractor (per hour) excluding labour. – Nil.

Source: NSW Agriculture (pers. comm., 14 March 2002).

Table C.2 Draft cash flow budget for washington navels planted in the Sunraysia region^a

| | Unit | Years | | | | | | | | | | |
|-------------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10–20 |
| Yield ^b | t/ha | – | – | – | 1 | 6 | 16 | 18 | 26 | 31 | 35 | 35 |
| Price | \$/t | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 |
| Total income | \$/ha | – | – | – | 350 | 2 100 | 5 600 | 6 300 | 9 100 | 10 850 | 12 250 | 12 250 |
| Site preparation ^c | \$/ha | 9 009 | | | | | | | | | | |
| Planting | \$/ha | – | 5 803 | | | | | | | | | |
| Irrigation ^d | \$/ha | 116 | 303 | 350 | 396 | 396 | 443 | 443 | 490 | 537 | 583 | 583 |
| Herbicide | \$/ha | – | 63 | 63 | 63 | 113 | 113 | 113 | 113 | 113 | 113 | 82 |
| Fertiliser | \$/ha | – | 245 | 245 | 245 | 519 | 519 | 519 | 548 | 548 | 548 | 250 |
| Fungicides | \$/ha | – | – | – | – | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Insecticides | \$/ha | – | 41 | 41 | 41 | 160 | 160 | 160 | 228 | 228 | 228 | 295 |
| Crop management sprays ^e | \$/ha | – | – | – | – | – | – | – | 380 | 380 | 380 | 308 |
| Pruning | \$/ha | – | 133 | 133 | 133 | 665 | 665 | 665 | 1 382 | 1 382 | 1 382 | 1 457 |
| Crop management ^f | \$/ha | – | – | – | – | 290 | 290 | 290 | 290 | 290 | 290 | 689 |
| Tractor ^g | \$/ha | – | 809 | 809 | 815 | 588 | 649 | 662 | 784 | 815 | 839 | 864 |
| Contract harvesting | \$/ha | – | – | – | 64 | 384 | 1 024 | 1 152 | 1 664 | 1 984 | 2 240 | 2 240 |
| Harvesting levies | \$/ha | – | – | – | 7 | 44 | 117 | 131 | 190 | 226 | 256 | 256 |
| Cartage | \$/ha | – | – | – | – | – | – | – | – | – | – | – |
| Total cost | \$/ha | 9 125 | 7 396 | 1 640 | 1 764 | 3 162 | 3 983 | 4 138 | 6 071 | 6 505 | 6 861 | 7 027 |
| Annual cash surplus/deficit | \$/ha | -9 125 | -7 396 | -1 640 | -1 414 | -1 062 | 1 617 | 2 162 | 3 029 | 4 345 | 5 389 | 5 223 |
| Water usage | ML/ha | – | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 10 | 10 |

^a Provides information on the expected cash flows over a 21 year investment for washington navels planted in the Sunraysia region on a one hectare property.

^b Assumes a tree density of 550 trees per hectare. ^c Made up of land preparation (\$2509) (including the cost of ripping, levelling, gypsum, wind breaks) and irrigation system (\$6500) (micro spray irrigation system). ^d Irrigation costs are fixed levies per hectare (\$116) plus power, water and levies per megalitre. ^e Crop management sprays include 'G.A. and Wetter', cling spray and ethrel. ^f Crop management is the cost of leaf analysis, pest monitoring and hand fruit thinning. ^g The running cost of the tractor (per hour) excluding labour. – Nil.

Source: NSW Agriculture (pers. comm., 14 March 2002).

Table C.3 Draft cash flow budget for mandarins planted in the MIA region^a

| | Unit | Years | | | | | | | | | | |
|-------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10–20 |
| Yield ^b | t/ha | – | – | – | 1 | 6 | 16 | 18 | 26 | 31 | 35 | 35 |
| Price | \$/t | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 |
| Total income | \$/ha | – | – | – | 550 | 3 300 | 8 800 | 9 900 | 14 300 | 17 050 | 19 250 | 19 250 |
| Site preparation ^c | \$/ha | 9 009 | | | | | | | | | | |
| Planting | \$/ha | – | 5 803 | | | | | | | | | |
| Irrigation ^d | \$/ha | 116 | 303 | 350 | 396 | 396 | 443 | 443 | 490 | 537 | 583 | 583 |
| Herbicide | \$/ha | – | 66 | 66 | 66 | 129 | 129 | 129 | 129 | 129 | 129 | 96 |
| Fertiliser | \$/ha | – | 152 | 152 | 152 | 382 | 382 | 382 | 411 | 411 | 411 | 198 |
| Fungicides | \$/ha | – | – | – | – | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Insecticides | \$/ha | – | 53 | 53 | 53 | 192 | 192 | 192 | 260 | 260 | 260 | 327 |
| Crop management sprays ^e | \$/ha | – | – | – | – | – | – | – | 488 | 488 | 488 | 394 |
| Pruning | \$/ha | – | 133 | 133 | 133 | 665 | 665 | 665 | 1 382 | 1 382 | 1 382 | 1 457 |
| Crop management ^f | \$/ha | – | – | – | – | 290 | 290 | 290 | 290 | 290 | 290 | 689 |
| Tractor ^g | \$/ha | – | 809 | 809 | 815 | 588 | 649 | 662 | 784 | 815 | 839 | 864 |
| Contract harvesting | \$/ha | – | – | – | 225 | 1 350 | 3 600 | 4 050 | 5 850 | 6 975 | 7 875 | 7 875 |
| Harvesting levies | \$/ha | – | – | – | 6 | 35 | 92 | 104 | 150 | 178 | 201 | 201 |
| Cartage | \$/ha | – | – | – | 4 | 21 | 56 | 63 | 91 | 109 | 123 | 123 |
| Total cost | \$/ha | 9 125 | 7 318 | 1 562 | 1 849 | 4 051 | 6 501 | 6 982 | 10 327 | 11 576 | 12 584 | 12 810 |
| Annual cash surplus/deficit | \$/ha | -9 125 | -7 318 | -1 562 | -1 299 | -751 | 2 299 | 2 918 | 3 973 | 5 474 | 6 666 | 6 440 |
| Water usage | ML/ha | – | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 10 | 10 |

^a Provides information on the expected cash flows over a 21 year investment for mandarins planted in the MIA region on a one hectare property. ^b Assumes a tree density of 550 trees per hectare. ^c Made up of land preparation (\$2509) (including the cost of ripping, levelling, gypsum, wind breaks) and irrigation system (\$6500) (micro spray irrigation system). ^d Irrigation costs are fixed levies per hectare (\$116) plus power, water and levies per megalitre. ^e Crop management sprays include 'G.A. and Wetter', cling spray and ethrel. ^f Crop management is the cost of leaf analysis, pest monitoring and hand fruit thinning. ^g The running cost of the tractor (per hour) excluding labour. – Nil.

Source: NSW Agriculture (pers. comm., 14 March 2002).

Table C.4 Draft cash flow budget for mandarins planted in the Sunraysia region^a

| | Unit | Years | | | | | | | | | | |
|-------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10–20 |
| Yield ^b | t/ha | – | – | – | 1 | 6 | 16 | 18 | 26 | 31 | 35 | 35 |
| Price | \$/t | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 |
| Total income | \$/ha | – | – | – | 550 | 3 300 | 8 800 | 9 900 | 14 300 | 17 050 | 19 250 | 19 250 |
| Site preparation ^c | \$/ha | 9 009 | | | | | | | | | | |
| Planting | \$/ha | – | 5 803 | | | | | | | | | |
| Irrigation ^d | \$/ha | 116 | 303 | 350 | 396 | 396 | 443 | 443 | 490 | 537 | 583 | 583 |
| Herbicide | \$/ha | – | 63 | 63 | 63 | 113 | 113 | 113 | 113 | 113 | 113 | 82 |
| Fertiliser | \$/ha | – | 245 | 245 | 245 | 519 | 519 | 519 | 548 | 548 | 548 | 250 |
| Fungicides | \$/ha | – | – | – | – | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Insecticides | \$/ha | – | 41 | 41 | 41 | 160 | 160 | 160 | 228 | 228 | 228 | 295 |
| Crop management sprays ^e | \$/ha | – | – | – | – | – | – | – | 380 | 380 | 380 | 308 |
| Pruning | \$/ha | – | 133 | 133 | 133 | 665 | 665 | 665 | 1 382 | 1 382 | 1 382 | 1 457 |
| Crop management ^f | \$/ha | – | – | – | – | 290 | 290 | 290 | 290 | 290 | 290 | 689 |
| Tractor ^g | \$/ha | – | 809 | 809 | 815 | 588 | 649 | 662 | 784 | 815 | 839 | 864 |
| Contract harvesting | \$/ha | – | – | – | 225 | 1 350 | 3 600 | 4 050 | 5 850 | 6 975 | 7 875 | 7 875 |
| Harvesting levies | \$/ha | – | – | – | 7 | 44 | 117 | 131 | 190 | 226 | 256 | 256 |
| Cartage | \$/ha | – | – | – | – | – | – | – | – | – | – | – |
| Total cost | \$/ha | 9 125 | 7 396 | 1 640 | 1 925 | 4 128 | 6 559 | 7 036 | 10 257 | 11 496 | 12 496 | 12 662 |
| Annual cash surplus/deficit | \$/ha | -9 125 | -7 396 | -1 640 | -1 375 | -828 | 2 241 | 2 864 | 4 043 | 5 554 | 6 754 | 6 588 |
| Water usage | ML/ha | – | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 9 | 10 | 10 |

^a Provides information on the expected cash flows over a 21 year investment for mandarins planted in the Sunraysia region on a one hectare property. ^b Assumes a tree density of 550 trees per hectare. ^c Made up of land preparation (\$2509) (including the cost of ripping, levelling, gypsum, wind breaks) and irrigation system (\$6500) (micro spray irrigation system). ^d Irrigation costs are fixed levies per hectare (\$116) plus power, water and levies per megalitre. ^e Crop management sprays include 'G.A. and Wetter', cling spray and ethrel. ^f Crop management is the cost of leaf analysis, pest monitoring and hand fruit thinning. ^g The running cost of the tractor (per hour) excluding labour. – Nil.

Source: NSW Agriculture (pers. comm., 14 March 2002).

Estimation of unit cost of production

Variation in the cost and production levels over the life of an orchard poses a challenge in trying to derive a measure of the average unit cost of production. The methodology used here is referred to as discounted weighted average cost of production (DWACOP) and is based on the discount weighted average tariff methodology used in the utilities industries, especially in the gas industry.

The DWACOP method was chosen because it calculates a constant unit cost over the production cycle of the investment, which is consistent with investment planning, production theory and cost of service principles (Salerian and Jomini 1994).

The approach calculates a constant unit cost of production such that the net present value of the measure of the constant unit cost multiplied by the quantities of production over the economic life of the orchard equals the net present value of all of the cash flow expenses for the orchard.

DWACOP is calculated using a two-step procedure. First, the net present value of the annual expenditures is calculated using a 10 per cent discount rate (the same rate used by NSW Agriculture). Second, the net present value of total cost is then divided by the discounted sum of the annual levels of production over the life of the orchard.

$$\text{NPV of cost} = \sum_{t=1}^{21} \frac{TC_t}{(1+i)^t} = \sum_{t=1}^{21} \frac{DWACOP * Q_t}{(1+i)^t}$$
$$DWACOP = \frac{\sum_{t=1}^{21} \frac{TC_t}{(1+i)^t}}{\sum_{t=1}^{21} \frac{Q_t}{(1+i)^t}}$$

Where TC_t is the expenditure in year t , Q_t is the quantity of production in year t , i is the real rate of return and the investment is over 21 years.

Table C.5 details the unit cost of producing citrus in the MIA and Sunraysia over the economic life of navel and mandarin trees using the DWACOP method.

Table C.5 Unit cost of producing citrus in MIA and Sunraysia

| | Unit | MIA | | Sunraysia | |
|--|-------|------------------|----------|------------------|----------|
| | | Washington navel | Mandarin | Washington navel | Mandarin |
| DWACOP | \$/t | 330.0 | 491.0 | 328.7 | 489.7 |
| Revenue available to pay for certain fixed costs | \$/ha | 344.6 | 1016.9 | 366.5 | 1038.8 |

Source: Productivity Commission estimates based on tables C.1–C.4.

C.2 Primary Industries and Resources South Australia

PIRSA provided information on the expected cash flows for growing valencias and navels in South Australia over a 21 year investment period. Table C.6 and C.7 detail these cash flows.

Unit cost of production

The Commission calculated DWACOP of growing valencias and navels in South Australia using the method described for New South Wales. The unit cost is \$159 per tonne for both navels and valencias. Given a price of \$170 per tonne for valencias and \$330 per tonne for navels, this equates to a cash surplus of \$208 per hectare and \$3169 per hectare for valencias and navels, respectively, to cover overheads, owner's labour, depreciation (of farm equipment) and a return on capital (land and farm equipment).

Table C.6 Cash flow budget for navels planted in South Australia

| | Unit | Years | | | | | | | | | | |
|--------------------------------------|--------------|---------------|-------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|---------------|---------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10–20 |
| Yield ^a | t/ha | – | – | – | – | 2.5 | 5 | 10 | 20 | 30 | 50 | 50 |
| Price | \$/t | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 |
| Total income | \$/ha | – | – | – | – | 825 | 1 650 | 3 300 | 6 600 | 9 900 | 16 500 | 16 500 |
| Trees/plants | \$/ha | 408 | | | | | | | | | | |
| Sprinklers | \$/ha | 3 500 | | | | | | | | | | |
| Pruning ^b | \$/ha | – | – | – | – | 397 | 397 | 397 | 397 | 397 | 397 | 397 |
| Fertiliser/spread/cover crop | \$/ha | – | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 |
| Water and power ^b | \$/ha | – | 198 | 248 | 347 | 446 | 495 | 495 | 495 | 495 | 495 | 495 |
| Herbicides/sprays ^b | \$/ha | – | 56 | 70 | 97 | 125 | 139 | 139 | 139 | 139 | 139 | 139 |
| Pest and disease sprays ^b | \$/ha | – | 175 | 219 | 306 | 393 | 437 | 437 | 437 | 437 | 437 | 437 |
| Picking | \$/ha | – | – | – | – | 124 | 249 | 498 | 996 | 1 493 | 2 489 | 2 489 |
| Freight | \$/ha | – | – | – | – | 32 | 65 | 129 | 259 | 388 | 647 | 647 |
| Total cost | \$/ha | 3 908 | 955 | 1 063 | 1 277 | 2 045 | 2 309 | 2 622 | 3 249 | 3 877 | 5 131 | 5 131 |
| Annual cash surplus/deficit | \$/ha | -3 908 | -955 | -1 063 | -1 277 | -1 223 | -666 | 663 | 3 321 | 5 979 | 11 295 | 11 295 |

^a Assuming there are 408 trees per hectare. ^b The Citrus Growers of South Australia used PIRSA estimates in their submission to this inquiry. The costs reported here are slightly different from those reported in the Citrus Growers of South Australia submission because they reflect subsequent corrections made to the PIRSA estimates. – Nil.

Source: Citrus Growers of South Australia (sub. 79, pp. 18–19); PIRSA (pers. comm., 2 April 2002).

Table C.7 Cash flow budget for valencias planted in South Australia

| | Unit | Years | | | | | | | | | | |
|--------------------------------------|--------------|---------------|-------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|
| | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10–20 |
| Yield ^a | t/ha | – | – | – | – | 2.5 | 5 | 10 | 20 | 30 | 50 | 50 |
| Price | \$/t | | 170 | 170 | 170 | 170 | 170 | 170 | 170 | 170 | 170 | 170 |
| Total income | \$/ha | – | – | – | – | 425 | 850 | 1 700 | 3 400 | 5 100 | 8 500 | 8 500 |
| Trees/plants | \$/ha | 408 | | | | | | | | | | |
| Sprinklers | \$/ha | 3 500 | | | | | | | | | | |
| Pruning ^b | \$/ha | – | – | – | – | 397 | 397 | 397 | 397 | 397 | 397 | 397 |
| Fertiliser/spread/cover crop | \$/ha | – | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 | 527 |
| Water and power ^b | \$/ha | – | 198 | 248 | 347 | 446 | 495 | 495 | 495 | 495 | 495 | 495 |
| Herbicides/sprays ^b | \$/ha | – | 56 | 70 | 97 | 125 | 139 | 139 | 139 | 139 | 139 | 139 |
| Pest and disease sprays ^b | \$/ha | – | 175 | 219 | 306 | 393 | 437 | 437 | 437 | 437 | 437 | 437 |
| Picking | \$/ha | – | – | – | – | 124 | 249 | 498 | 996 | 1 493 | 2 489 | 2 489 |
| Freight | \$/ha | – | – | – | – | 32 | 65 | 129 | 259 | 388 | 647 | 647 |
| Total cost | \$/ha | 3 908 | 955 | 1 063 | 1 277 | 2 045 | 2 310 | 2 625 | 3 255 | 3 885 | 5 145 | 5 145 |
| Annual cash surplus/deficit | \$/ha | -3 908 | -955 | -1 063 | -1 277 | -1 620 | -1 460 | -925 | 145 | 1 215 | 3 355 | 3 355 |

^a Assuming there are 408 trees per hectare. ^b The Citrus Growers of South Australia used PIRSA estimates in their submission to this inquiry. The costs reported here are slightly different from those reported in the Citrus Growers of South Australia submission because they reflect subsequent corrections made to the PIRSA estimates. – Nil.

Source: Citrus Growers of South Australia (sub. 79, pp. 18–19); PIRSA (pers. comm., 2 April 2002)

D Supplementary information on government policies and programs

The material in this appendix supplements that presented in chapters 6 and 7, which discuss government policies and programs relevant to the inquiry.

D.1 Citrus boards

There are four regional citrus boards in Australia — Murray Valley Citrus Marketing Board, Citrus Board of South Australia, Murrumbidgee Irrigation Area (MIA) Citrus Fruit Promotion Marketing Committee (trading as Riverina Citrus), and Queensland Fruit and Vegetable Growers.

Each of these boards was established through legislation, which set out their general functions and statutory powers. Some of this legislation has been, or is being, reviewed — as discussed later in the section.

The relevant piece of legislation for the Murray Valley Citrus Marketing Board, is the *Murray Valley Citrus Marketing Act 1989* of Victoria and New South Wales; for the Citrus Board of South Australia the *Citrus Industry Act 1991*; for the MIA Citrus Fruit Promotion Marketing Committee, it is a Citrus Fruit Promotion Marketing Order made under the *Marketing of Primary Products Act 1983* (NSW); and for the Queensland Fruit and Vegetable Growers, the *Fruit Marketing Organisation Act 1923*.

The general functions of each board essentially are identical. They include (or until recently have included):

- promoting and ‘orderly marketing’ of citrus fruit and citrus products, in both domestic and export markets;
- developing and maintaining minimum quality standards for citrus fruit and citrus products;
- collecting information relating to the production and marketing of citrus fruit and citrus products, including current wholesale prices and trends in production and marketing;
- promoting the sale and consumption of citrus fruit and citrus products; and

-
- undertaking, assisting or encouraging research and development (R&D) activities capable of improving methods for producing, handling, marketing and processing.

‘Orderly marketing’ commonly refers to the marketing board being actively involved in the marketing of products or by its actions, directly influencing the functioning of markets (CIE 1999).

Powers assigned to the citrus boards allowing them to market citrus and citrus products in their area may include (or until recently have included):

- the setting and collecting of levies on produce grown in the area;
- requiring all citrus growers — and in South Australia, packers and processors as well — to register with the board;
- fixing the terms and conditions attached to the sale of citrus and citrus products at each stage of the supply chain;
- recommending or fixing a minimum price for the sale of citrus products within a certain specified grade, class or description; and
- acquiring citrus directly (although the South Australian Act does not provide for the board to acquire produce).

Citrus boards have never utilised their price setting and crop acquisition powers.

Each board imposes (or until recently has imposed) levies on the sale of citrus to fund the services which they provide to the industry. In the Murray Valley, the levy is set at \$7 per tonne. In South Australia, there is a general levy of \$2.20 per tonne and an additional levy of \$1 per tonne on oranges, which goes into a fund for domestic promotions. In Queensland, growers are levied 26 cents per carton (irrespective of whether the carton is 9 or 18 kilograms). In the Riverina, a levy of \$3 per tonne on all citrus fruit applies.

Under National Competition Policy, governments undertook to review, and where appropriate, reform legislation that restricts competition by 30 June 2002. Consequently, the legislation relating to each citrus board has been, or is to be, reviewed.

The review of the *Murray Valley Citrus Marketing Act 1989* was completed in July 1999 (CIE 1999). The review found that there was a case for retaining the legislation underpinning the continuation of the Board and the collection of compulsory levies to fund its core activities — particularly where those activities were of a ‘public good’ nature, such as R&D. However, the need for a more commercially-orientated approach to the use of levy funds was emphasised. It was

recommended that some of the Board's other activities, such as the market information services, would be more appropriately funded through mechanisms based on user or beneficiary pays principles. The review also recommended that the unused powers enabling the Board to become actively involved in the marketing and processing of citrus fruit should be removed.

The review of the MIA Citrus Fruit Promotion Marketing Committee was completed in 1997, but the *Marketing of Primary Products Act 1983* (NSW) was not reviewed *per se* (NSW Government Review Group 1997). The review found that there was a case for the Committee to continue providing various services to the industry. It also found that there was a case for levies to be collected in order to fund activities of a 'public good' nature, such as R&D. The collection of levies for these activities is authorised under the *Agricultural Services Act 1991* (NSW). The review recommended that some of the Committee's other activities, such as promotion and quality management services, would be more appropriately funded through mechanisms based on user or beneficiary pays principles. The initial Marketing Order in 1989 that established the Committee had no provisions for active involvement in the marketing and processing of citrus fruit. A new Marketing Order re-establishing the Committee was issued in 1998.

In Queensland, the *Fruit Marketing Organisation Act 1923* was repealed in late 1999. At that time, the Queensland Fruit and Vegetable Growers became incorporated, and has acted as a replacement body. All fruit growers in the state are compulsorily members until 30 June 2003. These changes have taken place under the *Primary Industry Bodies Reform Act 1999*.

In South Australia, a review of the *Citrus Industry Act 1991* has been completed. An earlier consultation paper for the review has been released, and the South Australian Government is expected to release the final report in 2002.

D.2 Horticulture Australia Limited

Horticulture Australia Limited (HAL) is an industry-owned company responsible for the provision of R&D and marketing services to Australian horticultural industries. Horticultural industries covered by HAL include those producing fruit, vegetables, nuts and nursery products.

HAL was established in February 2001 by the merger of the two statutory authorities — the Horticultural Research and Development Corporation and the Australian Horticultural Corporation — which previously provided R&D and marketing services. This merger was legislated by the Commonwealth *Horticulture Marketing and Research and Development Services Act 2000*. Transitional

arrangements relating to the merger were contained in the *Horticulture Marketing and Research and Development Services Bill 2000*.

Under the Act, HAL is the designated industry services body and industry export control body for 26 horticultural industries. These industries — represented by their peak bodies — are signatories to a Memorandum of Understanding with the Commonwealth that outlines HAL's responsibilities and operating arrangements (Corrs Chambers and Westgarth 2000). The peak industry body for the Australian citrus industry is the Australian Citrus Growers Inc.

Funding arrangements

There are different funding arrangements for each of HAL's activities. R&D is funded through a levy of \$2 per tonne on fresh citrus and voluntary contributions, which are matched by the Commonwealth Government up to a prescribed limit (0.5 per cent of the industry's gross value of production). Voluntary contributions typically are made where an issue is regional in nature, short term or an emergency. HAL also received funding for R&D through the Citrus Market Diversification Program between 1996 and 2001 (section D.4). HAL's total R&D funding over the period 1994–2001 is shown in table D.1. Marketing activities are funded by a levy of \$0.75 per tonne on fresh oranges.

Table D.1 **HAL's citrus R&D funding, 1994–2001**

Dollars

| Year | Industry levy | Voluntary contributions | Matching Commonwealth funding ^a | Citrus Market Diversification Program | Total |
|------|---------------|-------------------------|--|---------------------------------------|-----------|
| 1994 | 827 604 | 204 267 | 1 031 872 | .. | 2 063 743 |
| 1995 | 925 899 | 209 034 | 1 134 933 | .. | 2 269 866 |
| 1996 | 786 266 | 160 998 | 947 264 | 218 511 | 2 113 039 |
| 1997 | 986 214 | 185 511 | 1 171 725 | 414 022 | 2 757 472 |
| 1998 | 931 898 | 244 235 | 1 176 134 | 200 067 | 2 552 334 |
| 1999 | 816 235 | 59 560 | 875 795 | 162 024 | 1 913 614 |
| 2000 | 808 576 | 154 371 | 962 948 | 460 081 | 2 385 976 |
| 2001 | 826 523 | 135 500 | 962 024 | 169 815 | 2 093 862 |

^a The Commonwealth matches industry levies and voluntary contributions .. Not applicable

Source: HAL (pers. comm., 6 December 2001).

Levies are usually imposed at the first point of sale, and are collected by the Levies and Revenue Services Division of the Department of Agriculture Fisheries and Forestry – Australia on a cost recovery basis. Administrative expenses incurred in the collection of levies are recovered. The *Primary Industries (Excise) Levies Act 1999* provides the legislative basis for the imposition of levies, with Australian

Citrus Growers Inc. being a key stakeholder in determining the amount of the levy for the citrus industry.

R&D activities

HAL manages the R&D program for the Australian citrus industry. Priorities for the program are determined by levy payers. HAL seeks research proposals through an annual general call and also holds consultative forums throughout Australia on a regular basis — the most recent were in October and November 2000 (through the Horticultural Research and Development Corporation). HAL also undertakes specific commissioned projects. In conducting R&D, HAL frequently collaborates with other R&D bodies and industry organisations, such as Auscitrus.

Frequently, projects within the R&D program are closely linked to each other, with various projects being undertaken simultaneously with other research partners. For example, HAL is undertaking a project to develop a Citrus Market Intelligence System which will provide the industry with up-to-date information on crop trends, conditions and market preferences in Australian and foreign markets. HAL has also been working in collaboration with Auscitrus and New South Wales Agriculture on the Australian Citrus Improvement Program. A central part of this project involves developing and assessing new citrus varieties to meet consumer requirements both overseas and in Australia.

An overarching objective of R&D projects for the next two years is to improve the supply chain (HAL 2001). With market trends identified, a crop forecasting system has been proposed so that growers can incorporate climatic conditions into their planting decisions more accurately. The Australian Citrus Growers Inc. is working to establish closer links between growers and packers in getting product to market, including a move to more cooperative arrangements.

Marketing

HAL undertakes marketing activities for levy-paying industries in both domestic and export markets. Currently HAL's marketing for the Australian citrus industry is focused on foreign markets. Key areas of involvement include evaluating the potential of new markets, improving market access and consumer promotional campaigns. As discussed in chapter 7, HAL is a member of the Horticultural Industry Market Access Committee, which assists Biosecurity Australia in setting priorities among requests for access to foreign markets.

In recent years, promotional activities for oranges have been undertaken in a number of countries through the 'Australia fresh' program. This program seeks to increase awareness of Australian oranges in a coordinated manner by sponsoring various events and distributing point-of-sale material to retailers and wholesalers.

Export control powers

The *Horticulture Marketing and Research and Development Services Act 2000*, prohibits exports of 'regulated horticultural products' into associated regulated markets unless the person has an export licence and complies with any licensing

Table D.2 **Export control conditions, citrus products**

| Country | Export control conditions |
|--|--|
| Oranges | |
| All | Exporting oranges is prohibited other than by licensees in accordance with the requirements of the Corporation Permission Class 1 and Class 2 citrus are permitted for export Terms of trade and terms of payment are negotiable between the buyer and seller |
| USA | Only citrus from the Riverland district of South Australia, the Sunraysia district of Victoria and New South Wales, and the Riverina district of New South Wales may be exported Exports may only be made to DNE World Fruit Sales Inc. of Fort Pierce, Florida |
| Thailand | All exports must be to appointed importers (currently 14) Exports should meet minimum maturity standards (an 8:1 sugar to acid ratio), unless an appointed importer requires early season fruit Export of early season fruit is permitted, at the importer's request and if it does not carry 'Australia fresh' stickers Exports must be packed according to specific requirements — in a 30 litre carton with a maximum weight of 20 kilograms Exporters are encouraged to support the 'Australia fresh' Certification scheme, including using approved 'Australia fresh' fruit stickers Exporters must provide a record of exports by the end of the week of dispatch |
| Taiwan ^a | All exports must be to appointed importers (currently 14) Exports must be packed according to specific requirements — in a carton with internal dimensions 414mm x 270mm x 260mm and a maximum weight of 20 kilogram Exports by sea must be palletised |
| Republic of Korea | All exports must be to appointed importers (currently two for the domestic market and the Defence Logistics Agency for US military forces) Exporters using 15 kilogram cartons must be licensed under the 'Australia fresh' scheme and use 'Australia fresh' fruit stickers |
| Mandarins, tangelos, grapefruit, limes and lemons | |
| USA | Only citrus from the Riverland district of South Australia, the Sunraysia district of Victoria and New South Wales, and the Riverina district on New South Wales may be exported Exports may only be made to DNE World Fruit Sales Inc. of Fort Pierce, Florida Terms of trade and terms of payment are negotiable between the buyer and seller |

^a Export control powers were used to administer the Taiwan quota (which was removed on 1 January 2002).

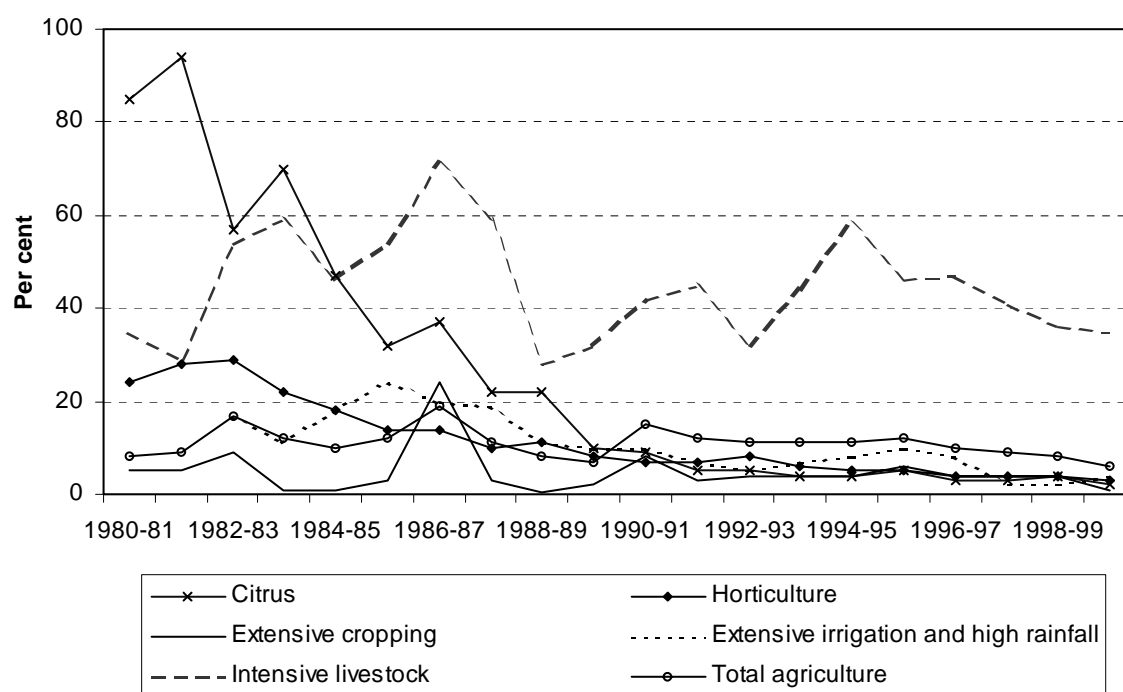
Source: AHC (1997); Australian Citrus Growers Inc. (sub. 72, pp. 28–29).

conditions. Under current arrangements, HAL administers the licensing scheme. HAL currently administers export controls developed and imposed before it was created, in line with transitional arrangements. Licences are granted subject to compliance with conditions contained in the relevant 'Corporation Permission' (AHC 1997) (table D.2). Export control of citrus products is applied in Taiwan, Thailand, Republic of Korea and the United States.

D.3 Effective rates of assistance

Effective rates of assistance provide a broad indication of the level of assistance that government provides to an industry through measures such as tariffs, R&D funding and domestic marketing and regulatory arrangements. The effective rate of assistance is defined as the percentage change in the value added per unit of output due to government assistance (PC 1998b). As discussed in chapter 6, the level of tariff and tax assistance provided to the citrus industry has declined significantly in the last two decades (figure D.1). The citrus industry, however, is not the only agricultural industry to have experienced reductions in assistance during this time.

Figure D.1 **Effective rates of assistance for the citrus industry and various agricultural ANZSIC divisions, 1980-81 to 1999-2000^a**



^a Horticulture includes apples, pears, dried vine fruits, wine grapes, citrus, deciduous canning fruits, bananas, tobacco and vegetables. Extensive cropping includes wheat, barley, oats, maize, sorghum and oilseeds. Extensive irrigation and high-rainfall crops include sugar, cotton and rice. Intensive livestock includes pigs, poultry, eggs, milk production, manufacturing milk and fresh milk.

Source: IC (1995a); PC (1998b, 2001e).

D.4 Citrus Market Diversification Program

The Citrus Market Diversification Program, introduced in November 1994, sought to facilitate adjustment within the citrus industry following the easing of protective tax and tariff measures from the late 1980s. Central to this objective was shifting the focus of the domestic industry away from the low value frozen concentrate orange juice market towards the more valuable fresh fruit and fresh juice markets.

The Citrus Market Development Group managed the program. This involved evaluating applications for funding and distributing funds to successful applicants. Successful applications were passed on to the appropriate department, such as Agriculture, Fisheries and Forestry – Australia, which then coordinated the project. The Citrus Market Development Group consisted of representatives from all sectors of the citrus industry, the statutory marketing authorities, the Horticultural Research and Development Corporation and the Australian Horticultural Corporation.

Four categories of projects received funding through the program — quality assurance, domestic promotion, market access and promotion, and industry improvement — with a research component common to each. The nature of activities undertaken under each of these is discussed briefly.

Quality assurance

These projects were designed to improve quality control activities within the industry and increase the level of awareness about the importance of this issue for sales in domestic and export markets. Quality assurance received around 9 per cent (\$0.8 million) of program funds.

As a result of their position in the supply chain, packing houses were targeted as a check point for product quality. Funds were provided in several regions for quality coordinators who liaised with packing houses and growers on the needs of the market and best practice methods for ensuring that quality was met. Research into identifying and understanding pests threatening citrus products supported these activities.

Domestic promotion

Activities focused on increasing sales of fresh orange juice and raising consumer awareness about the fruit fly project being undertaken in the eastern States. Increasing consumer awareness about fruit flies was a focus of the domestic promotion activities as most fruit fly outbreaks result from the transport of infested

fruit by private travellers. Around 15 per cent (\$1.3 million) of program funds were directed to domestic promotion.

Market access and promotion

Market access and promotion activities were a central part of the Citrus Market Diversification Program, attracting around 47 per cent (\$4 million) of the total funding. The Australian Horticultural Corporation undertook the majority of the projects, with Horticultural Research and Development Corporation and Australian Quarantine Inspection Service undertaking work on research and quarantine.

Background intelligence and market evaluations were undertaken to improve knowledge of the opportunities for growth in existing markets and to assist the industry in identifying new markets — and any associated entry barriers.

These activities led to the launching of ‘Australia fresh’ promotions in markets such as New Zealand, Hong Kong, Singapore and Malaysia where Australian produce already was available. For other markets such as Japan, China and Korea, work was undertaken on addressing quarantine restrictions and trialling new disinfestation techniques to secure access for Australian produce.

Work on market access involved the Horticultural Research and Development Corporation preparing and distributing a disinfestation market access manual, and developing a strategy for creating a fruit fly exclusion zone (see section 6.3). There also were efforts to improve the level of coordination between growers and packing houses to ensure that exported fruit reached export markets at the right time.

Industry improvement

Around 25 per cent (\$2.1 million) of program funds were directed to projects to improve industry coordination of production and marketing activities. These projects included distributing information for modelling crop returns to growers, establishing best practice networks for growers and packers, and undertaking a feasibility study into the amalgamation of State citrus marketing boards. Funds also were directed to the trialling of new citrus varieties.

D.5 Rural Partnership Program

Citrus growers in the Riverland, Murrumbidgee and Sunraysia regions have received assistance through the Rural Partnership Program in recent years. This

section discusses the eligibility criteria and the key elements of the Rural Partnership Program in these regions.

Eligibility

Anyone running a farm business located within one of the 12 targeted regional areas is eligible for the Rural Partnership Program. The basic eligibility criterion for assistance in each of the programs discussed here is that a majority of the applicant's productive area is located within the region concerned.

The Kickstart Sunraysia program was aimed specifically at farmers operating properties of 25 hectares or less. The Murrumbidgee strategy, MIA PowerPACT, is being targeted at commercial citrus properties during its first year of operation.

Program components

Business plans

In each region, growers are required to develop a business plan as a prerequisite for other forms of assistance provided under the programs. To facilitate grower participation, the development of business plans was subsidised in each of the three areas.

- The Kickstart Sunraysia and MIA PowerPACT programs provide subsidies of up to 90 per cent of the associated costs of a business plan to a maximum of \$2700.
- In the Riverland program, applicants who were seeking a redevelopment grant (based on proposals within their business plan) received a subsidy of up to 50 per cent of the cost of a plan, to a maximum of \$1000. Applicants not seeking a redevelopment grant received a subsidy of up to 75 per cent of the cost of a plan, to a maximum of \$1500.

Within their business plan, growers were required to assess the current viability of their enterprise, evaluate the skill levels of core personnel and identify ways in which future viability might be improved. This process is intended to highlight the training needs and development options for each individual. Following the completion of a business plan, growers then have the option of addressing elements within them through other components of the local program.

Training assistance

Kickstart Sunraysia was the only one of the three programs to provide training grants, whereas the Riverland and Murrumbidgee strategies offered access to the FarmBis program (see chapter 6).

Redevelopment assistance

Redevelopment grants were available in each of the three programs for growers who sought to develop their farm infrastructure in order to improve productivity, viability and sustainability.

The types of activities eligible for funding include orchard replanting, the adoption of new harvesting technologies and, for those in the Sunraysia and Riverland areas, the updating of irrigation systems. The level of assistance available varies between strategies, with funding approvals being dependent on the business plan demonstrating viability of the redevelopment and the need for financial support in undertaking it.

- The Kickstart strategy provided subsidies up to a maximum of \$20 000 for the capital cost involved in the first two to four hectares of redevelopment. The size of the grant depended on the capital improvements identified in the formal business plan, the property being between 8 and 25 hectares in size, and the total grant being equal to no more than 25 per cent of the total capital cost incurred.
- The Riverland program provided grants of up to \$5000 available for the first two hectares of redevelopment work, conditional on the work being completed within two years.
- The MIA PowerPACT strategy provides a grant of up to 25 per cent of redevelopment costs, to a maximum of \$15 000.

In the Kickstart program, redevelopment grants were the most popular and recognised component (Chapman 2000).

Property purchase assistance

The Kickstart Sunraysia and MIA PowerPACT programs provide assistance for growers who wish to improve their viability by enlarging the size of their properties. There is no property purchase scheme under the Riverland program.

To receive assistance, growers were required to demonstrate the viability of an expanded operation in their business plan. Kickstart Sunraysia provided interest rate

subsidies of 50 per cent to growers operating properties smaller than 15 hectares. MIA PowerPACT provides grants of up to \$20 000 for 2 years. This component of the strategy has \$500 000 in Commonwealth funding.

Other forms of assistance within the programs

The Kickstart strategy provided re-establishment assistance supplementary to that available through the Agriculture Advancing Australia Farm Help program for growers seeking to leave farming. Applicants could receive an additional \$15 000 on top of the maximum \$45 000 available through Farm Help, provided that the associated asset tests were satisfied. There were no citrus growers among the 22 farmers who received re-establishment assistance under this part of the Kickstart program.

The Riverland program provided subsidies under an export enhancement scheme to raise the profile of Riverland products and industries in export markets. Participants received a grant covering up to 90 per cent of the costs involved in planning exporting and marketing activities, up to a maximum of \$5000.

The MIA PowerPACT provides financial support for participants to benchmark their business. Participation provides growers with access to production statistics on other growers in the same industry and facing similar circumstances. Funding is available for up to 80 per cent of the benchmarking cost to a maximum of \$800 over two years.

The use of these measures by citrus growers is detailed in chapter 6 (see table 6.1).

D.6 Export Market Development Grant scheme

Chapter 6 discusses the assistance available to exporters under the Export Market Development Grant scheme. This section covers administrative aspects of the program, including eligibility criteria, and provides detail on grants received by the citrus industry (table D.3).

The Export Market Development Grant scheme operates through the *Export Market Development Grant Act 1997*. In July 2001, the *Export Market Development Grant Amendment Act 2001* was passed, extending the scheme until 2005-06. Austrade — the Commonwealth agency responsible for export and investment facilitation — administers the scheme.

Table D.3 **Citrus industry Export Market Development Grant recipients, 1995-96 to 2000-01**

| | <i>Part-citrus industry^a</i> | | | <i>Citrus industry^b</i> | | |
|---------|---|------------------------------------|-------------------|------------------------------------|------------------------------------|-------------------|
| | <i>Grant payments^c</i> | <i>Export earnings^d</i> | <i>Recipients</i> | <i>Grant payments^c</i> | <i>Export earnings^d</i> | <i>Recipients</i> |
| | \$'000 | \$'000 | no. | \$'000 | \$'000 | no. |
| 1995-96 | 699 | 62 939 | 13 | 281 | 9 868 | 3 |
| 1996-97 | 1 206 | 62 387 | 16 | 332 | 15 728 | 5 |
| 1997-98 | 884 | 55 030 | 16 | 226 | 15 891 | 4 |
| 1998-99 | 507 | 54 811 | 14 | 55 | 5 805 | 2 |
| 1999-00 | 530 | 44 776 | 14 | 84 | 5 719 | 3 |
| 2000-01 | 457 | 22 536 | 11 | 26 | 2 042 | 2 |

^a Recipients whose total export earnings are derived partly from citrus industry activities. The export earnings figure is the total assessed for eligibility purposes for these recipients, since export earnings that specifically relate to citrus cannot be calculated from the business information collected. ^b Recipients whose export earnings are derived entirely from citrus industry activities. ^c Total payments in the financial year. ^d Total export earnings assessed for eligibility purposes.

Source: Austrade (pers. comm., 7 December 2001).

Any Australian individual, partnership, company, association, cooperative, statutory corporation or trust that has carried on export business in Australia during the relevant year is eligible to apply for an export grant. Certain organisations and groups also may apply for a grant, provided that they obtain approved status as either an approved body, a joint venture or a trading house.

To be eligible for an export grant, products must be substantially of Australian origin — this includes goods (with at least 50 per cent Australian content), services, intellectual property and know-how.

To be eligible, exporters must — in the grant year — have:

- income of less than \$50 million;
- export earnings of less than \$25 million (related companies being treated as a single entry for this calculation);
- incurred at least \$20 000 of eligible export expenses (see section 6.3); and
- principal status for the export business.

Once an exporter has received eight grants, additional grants can be claimed only for expenses incurred in new markets. A new market is defined as any country for which export earnings in that market have not exceeded \$300 000 in total in the three years prior to the grant year claim.

E Technical discussions on quarantine barriers

During the World Trade Organization's Uruguay Round of Multilateral Trade Negotiations — which was largely completed in 1994 — a timetable for the easing of agricultural tariff barriers was established, and an agreement on the use of quarantine restrictions in agricultural trade was reached. This agreement — the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS agreement) — acknowledges the legitimate use by members of measures to protect against risk to human, animal or plant life or health, whilst curbing their use in protecting domestic producers from international competition.

Biosecurity Australia (BA) is responsible for technical discussions with other countries on quarantine barriers, including the technical issues involved in reducing these in order to secure market access. Of BA's principal activities, two are relevant for this discussion — technical discussions on phytosanitary barriers for Australia's exports and assessing the quarantine risks associated with commodities imported into Australia. BA is a group within the Commonwealth Department of Agriculture, Fisheries and Forestry — Australia.

In recent years BA has either secured or improved access for the citrus industry to a number of Asian markets such as Japan and South Korea. Chapter 7 discusses potential impediments to trade associated with market access arrangements (including quarantine arrangements).

This appendix discusses the process involved in technical discussions on quarantine barriers to secure market access for Australia's exports and presents two recent case studies — mandarins to Japan and citrus to Korea.

E.1 General process

In deciding which particular commodities and which particular markets to pursue market access for, BA follows a set of priorities developed in consultation with industry and government stakeholders through the Horticultural Industry Market Access Committee (HMAC). This committee is chaired by Horticulture Australia

Limited (HAL), and includes representatives from the horticulture industry and government agencies.

After HMAc has placed a priority on pursuit of access for a particular commodity to a particular country, BA undertakes a number of steps in pursuing market access.

1. BA sets up an informal steering committee to provide information on the industry, assist in planning the strategy and provide feedback at various stages through the process. This steering committee generally includes around six or seven members, with industry representatives such as a grower, packer, exporter, and the Australian Horticultural Exporters Association Inc.
2. BA prepares a market access submission to submit formally to the foreign country's National Plant Protection Organisation (NPPO) — BA's counterpart agency. These submissions usually take around 3–6 months to complete, depending on the technical complexity of the issues involved. They generally include information on:
 - (a) the Australian citrus industry — citrus production, production areas, planting statistics, varieties, seasonal availability;
 - (b) pest and disease management strategies, including:
 - (i) pest and diseases list — which includes the scientific name, common name, part of plant affected and comments (including how to overcome the problem if required, where a pest was observed in Australia). When BA has drafted a pest and disease list, this is sent to State and Territory governments for endorsement. (Once completed the first time, this list may be used as a starting point for submissions for other market access requests. However, each time BA must send the list to State and Territory governments for endorsement, as the details, such as conditions and treatment, may have changed);
 - (ii) disinfestation treatments (say, for fruit fly); and
 - (iii) pre-shipment and other treatment options; and
 - (c) export procedures — current export markets, quantities, information on the cycle from harvest to sorting and packing for shipment, and transport.
3. BA sends the draft submission to the steering committee for comment and endorsement.
4. BA sends the endorsed submission to the relevant NPPO.
5. The NPPO then undertakes an import risk analysis. From this stage, there may be ongoing questions, information requests and clarifications between the NPPO and BA.

-
6. The NPPO identifies the major pest or disease concerns. These are generally pests and diseases that do not occur in that country. In relation to citrus, historically many countries have been primarily concerned with the Queensland fruit fly (Qfly) and the Mediterranean fruit fly (Medfly).
 7. BA develops pest and disease management options (for fruit fly disinfestation, the existing treatments include cold disinfestation and fumigation).
 8. Where required, BA seeks approval from the NPPO for a commercial-scale testing of the proposed pest risk management method. Importing countries may have guidelines for pest control or fumigation, so where available, testing must conform with these. Such guidelines apply to all exporting countries.
 9. Once the NPPO approves the testing method, commercial-scale testing is undertaken. BA provides results to the NPPO, which then analyses these results.
 10. Verification/confirmation trial. Some countries (such as Japan and Korea) also require a mini-scale confirmation trial, in the presence of an expert from the NPPO. (The cost of this trial, but not the expert's participation, is borne by industry, although the Citrus Market Diversification Program — see chapter 6 — funded a number of verification trials).
 11. Import protocol:
 - (a) BA drafts the import protocol — including proposed treatment, packing and transportation;
 - (b) BA provides a draft of the import protocol to the steering committee;
 - (c) BA incorporates the steering committee's comments and provides the draft protocol to the NPPO; and
 - (d) BA and the NPPO discuss the import protocol, and reach an agreement.
 12. The NPPO holds public hearings for input from stakeholders in its country.
 13. The NPPO effects legislative changes:
 - (a) it seeks the Agriculture Ministry's approval;
 - (b) it writes up a Ministerial notification; and
 - (c) it gazettes legislative changes.
 14. The NPPO advises BA when approval is granted.
 15. BA and the Australian Quarantine and Inspection Service (AQIS) draw up a work plan based on the Ministerial notification and import protocol.
 16. Industry requests, via AQIS, that a NPPO officer attends treatment supervision activities (if required) before trade commences.

E.2 Case studies

This section presents two case studies on technical discussions on quarantine barriers in markets where BA has achieved access for Australian citrus in recent years (through its predecessor, AQIS). The case studies are mandarins to Japan and citrus to Korea.

Mandarins to Japan

As discussed in chapter 2, Japan is an important export destination for approved Australian citrus varieties, with significant exports of Washington navel and valencia oranges, lemons and limes. Australia seeking access for selected varieties of ‘easy peel’ citrus (*mandarins*) was an extension from the market access request for citrus to Japan (which was started before 1989). Japan approved access for oranges in 1989 and lemons in 1990.

Table E.1 presents the various steps in the technical discussions in obtaining access for these selected varieties. The varieties, nominated by industry, were Imperial (tangerine), Ellendale (tangor), Murcott (tangelo) and Mineola (tangelo). Access for these varieties was achieved in March 1999.

More recently, industry proposed technical discussions on broader easy peel access — for any type of *mandarin*. In December 2001, BA raised this issue at its discussion with Japan’s Ministry of Agriculture, Forestry and Fisheries (MAFF). At MAFF’s request, BA is currently preparing a full market access submission on this issue. MAFF noted however, that its review of this issue would need to apply to all countries, not just Australia.

Citrus to Korea

The HMAAC nominated Australian citrus to Korea as a market access priority in 1992. Table E.2 presents the various steps in the technical discussions. Access for Australian oranges and lemons was achieved in May 2000.

BA consider that access to Korea was facilitated by Korea’s National Plant Quarantine Service’s (NPQS) acceptance of existing data demonstrating the fruit fly disinfestation treatment.

Table E.1 **Steps in technical discussions in access for mandarins to Japan^a**

| <i>Step</i> | <i>Date</i> |
|---|-------------------------|
| HMAC selects <i>mandarins</i> to Japan as a priority | b |
| AQIS sets up steering committee with industry and government representatives | c |
| MAFF identifies Qfly and Medfly as pest concerns | d |
| MAFF approves commercial-scale testing method | e |
| Experimental work on commercial-scale testing of treatment for Qfly and Medfly (in Queensland and Western Australia, respectively) | 1990–93 |
| Commercial-scale testing of treatment for Qfly and Medfly completed AQIS sends cold storage and disinfestation report to MAFF | April–June 1993 |
| MAFF provides AQIS with response to disinfestation report | September 1994 |
| AQIS sends response to MAFF | January 1995 |
| Japan advises of changes in quarantine legislation and further questions to be addressed in verification trial | July 1996 |
| AQIS sends verification trial proposal for Qfly and Medfly to MAFF | August 1996 |
| MAFF advises verification trial on Medfly only (as MAFF rejected Qfly commercial-scale testing on scientific/technical grounds) | September 1996 |
| In response to an industry request, AQIS discusses with MAFF changing their requirement to Qfly testing (as lower cost, and Queensland would be the source of all exports initially) | October 1996 |
| MAFF advises AQIS that if it wants to test for Qfly it will need to redo Qfly commercial-scale tests then do verification — alternatively, it can just conduct verification trial on Medfly | November 1996 |
| AQIS sends Medfly verification trial proposal to MAFF | June 1997 |
| Medfly verification trial (involving around 15 tonnes of fruit) conducted in Perth (MAFF technical officer inspection in October 1997) ^f | September–December 1997 |
| AQIS receives verification trial final report and provides it to MAFF | February 1998 |
| MAFF requests and AQIS provides MAFF with pest and disease list (included liaison with State scientific experts) | April 1998 |
| MAFF advises AQIS that assessment of scientific and technical aspects of verification trial is under way | July 1998 |
| AQIS and MAFF agree on import protocol | January 1999 |
| MAFF completes public hearing phase | 9 March 1999 |
| Australia gains access for specified varieties of <i>mandarins</i> | 15 April 1999 |
| First exports of <i>mandarins</i> to Japan | June 1999 |

^a Mandarin varieties were Imperial (tangerine), Ellendale (tangor), Murcott (tangelo) and Mineola (tangelo).
^b Mandarins was an extension from the market access request for citrus to Japan (pre 1989). Access for oranges was approved in 1989, access for lemons was approved in 1990. ^c AQIS did not formally set up a steering committee, although Queensland growers were consulted and provided regular input. ^d AQIS was already aware of pest concerns from orange and lemon market access proposals. ^e MAFF already approved the test method, as part of process for oranges and lemons. ^f Verification trial was funded by \$287 437 from the Citrus Market Diversification Program (see chapter 6 and appendix D).

Source: AFFA (2000); Biosecurity Australia (pers. comm., 26 February 2002; 11 April 2002).

Table E.2 Steps in technical discussions in access for citrus to Korea

| <i>Step</i> | <i>Date</i> |
|--|------------------|
| HMAC selects citrus to Korea as a priority | May 1992 |
| AQIS sets up steering committee with industry and government representatives | 1994 |
| AQIS provides market access submission to Korea's NPPO (NPQS) at 1994 bilateral discussions. ^a Includes pest and disease list and proposes three stage access (stage 1 lemons and oranges, stage 2 mandarins and stage 3 grapefruit). AQIS requests NPQS to conduct pest risk analysis | August 1994 |
| <i>Stage 1 — Oranges and lemons</i> | |
| NPQS identifies Qfly and Medfly as pest concerns | October 1996 |
| AQIS provides additional technical information on Qfly and Medfly to NPQS. AQIS nominates cold disinfestation treatment of oranges and lemons as an effective treatment and provides published data on cold disinfestation (commercial-scale results from testing for Japan) | March 1997 |
| NPQS satisfied with published data, so does not require separate commercial-scale test | September 1997 |
| NPQS requests a verification trial (so that NPQS scientists can observe) | January 1998 |
| NPQS agrees to the method for fruit fly disinfestation verification trial | June 1998 |
| NPQS advises AQIS that it is concerned about four fungal diseases. AQIS provides technical submission to support that these diseases are generally common in citrus growing countries and these diseases were effectively managed in Australian citrus orchards. NPQS maintains that they are still concerned, and requires that Australia must conduct leaf and fruit testing | March 1998 |
| Fruit fly disinfestation verification trial conducted in Gosford ^b | May 1998 |
| AQIS provides verification trial report to NPQS | November 1998 |
| NPQS accepts verification trial report | March 1999 |
| AQIS and NPQS meeting to discuss final stages of process. NPQS anticipated that it would take 6 months | May 1999 |
| Pilot leaf and fruit testing (oranges — 10 225 leaves and 4044 fruit, lemons — 4732 leaves and 1072 fruit) | July 1999 |
| Leaf and fruit testing in all export orchards; AQIS provides results to NPQS | March–April 2000 |
| AQIS and NPQS agree on import protocol | April 2000 |
| Korean Government gazettal of legislative changes allowing imports of Australian oranges and lemons | May 2000 |
| First exports of citrus to Korea | August 2000 |
| <i>Stage 2 — mandarins</i> | |
| Verification trial for mandarins planned, but cancelled as NPQS decides not to participate owing to sensitivity in Korea about mandarin imports | July 1998 |
| NPQS requested that mandarins be dropped from access proposal | August 1998 |
| Steering committee postpone mandarin proposal subject to consideration later | March 2001 |
| <i>Stage 3 — grapefruit</i> | |
| Steering committee decide to drop proposal as industry had not developed acceptable export varieties | July 1998 |

^a Industry prepared market access submission. ^b Verification trial was funded by \$77 013 from the Citrus Market Diversification Program (see chapter 6 and appendix D).

Source: AFFA (2000); Biosecurity Australia (pers. comm., 26 February 2002; 11 April 2002).

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