



Australian Government
Department of Agriculture,
Fisheries and Forestry

Australian Food Statistics 2005



Australian Food Statistics 2005

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ISSN 1444-0458

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foreword



Welcome to the latest edition of *Australian Food Statistics*, providing an insight into the Australian food industry and its latest trends.

Australian Food Statistics 2005 shows that our food industry is continuing to grow, with domestic retail food and beverage sales worth \$92 billion in 2004-05, an increase of 3.5 per cent over the previous year. Australia also exported \$24 billion worth of food and beverage products in the year to 30 June 2005.

Innovation and research and development (R&D) play an important role in developing competitive advantage. Three articles in this edition examine various aspects of this important topic:

- the status of R&D in the Australian food industry
- the role of innovation in helping Australia's food businesses remain internationally competitive
- the growing market for functional foods.

Australian Food Statistics 2005 also updates data on the food industry's supply chain – from 'paddock to plate'. It is therefore an invaluable tool for researchers, government policy advisers and private sector decision makers to help develop and maintain a competitive, innovative and profitable Australian food industry.

Peter McGauran

Australian Government Minister for Agriculture, Fisheries and Forestry



acknowledgments and abbreviations

acknowledgments

Robert Delforce, John Hogan and Alastair Peat from ABARE prepared the overview and statistical appendix of this report, with valuable assistance provided by Anthony Harman, Andrew Mayo, Chris Ambler and Michelle McGranahan of the Food Policy and Communications Section of the Australian Government Department of Agriculture, Fisheries and Forestry.

abbreviations

kg	kilogram	2.20462 pounds
t	tonne	1000 kilograms
kt	kilotonne	1000 tonnes
Mt	megatonne	1 000 000 tonnes
A\$	dollar (Australian)	
\$m	million dollars (Australian)	
\$b	billion dollars (Australian)	
US\$	dollar (United States)	
US\$m	million dollars (United States)	
US\$b	billion dollars (United States)	
cif	cost, insurance and freight	
EVAO	estimated value of agricultural operations	
fas	free alongside ship	
fob	free on board	
GDP	gross domestic product	
nec	not elsewhere classified	
ABARE	Australian Bureau of Agricultural and Resource Economics	
ABS	Australian Bureau of Statistics	
DAFF	Department of Agriculture, Fisheries and Forestry	
FAO	Food and Agriculture Organisation of the United Nations	
WTO	World Trade Organisation	
UNCTAD	United Nations Conference on Trade and Development	

Small **discrepancies** in totals are generally caused by rounding.
0 is used to denote nil or a negligible amount.



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OVERVIEW

Australian food industry, 2004-05

Robert Delforce and John Hogan, ABARE

While total consumer expenditure on food continued its rising trend in 2004-05, the rate of increase was slower than in 2003-04. Total food and liquor retail spending rose by 3.5 per cent to nearly \$92 billion compared to an increase of over 8 per cent in 2003-04. This mirrors a broad easing in retail spending growth during 2004-05, with food expenditure maintaining its market share of around 46 per cent of total Australian retail turnover.

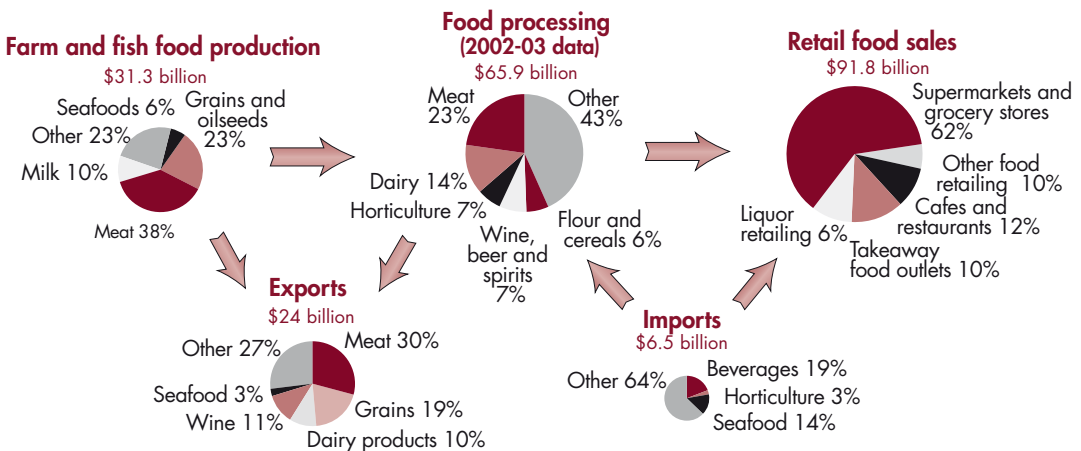
The value of Australian farm and fisheries production in 2004-05 fell by over 3 per cent to \$31.3 billion, mainly reflecting lower broad-acre crop yields from drier conditions in south and eastern Australia compared with 2003-04. Despite this, the value of food exports rose by

nearly 9 per cent to \$24 billion on strengthening export prices for sugar, beef and dairy products. With the value of food imports increasing by 10 per cent to \$6.5 billion in 2004-05, Australia remained a significant net exporter of food, with an export surplus of \$17.5 billion over food imports.

Food exports in 2004-05 accounted for 19 per cent of total Australian merchandise exports, which underscores the importance of the food industry in Australia's terms of trade.

This publication provides a statistical overview of some major aspects of the Australian food industry and its place in the domestic economy in 2004-05. The food industry encompasses many sectors — from the producers of raw

A Value chain for food in Australia, 2004-05



1 Overview of the Australian food industry

		2001-02	2002-03	2003-04	2004-05
Value of farm and fisheries food production	\$b	34.8	27.6	32.4	31.3 a
Value added, food processing	\$b	16.2b	16.6b	na	na
– share of GDP	%	2.3	2.3	na	na
Food and liquor retailing turnover	\$b	76.8	81.9	88.7	91.8
– share of total retailing	%	45.9	45.9	45.9	45.6
Value of food exports	\$b	26.6	22.3	22.1	24.0
– share of total merchandise trade	%	22.0	19.3	20.2	18.8
– minimally transformed share	%	34.7	30.6	32.1	28.9
Value of food imports	\$b	5.3	5.9	5.9	6.5

a Includes an imputed value for horticultural production in 2004-05. b Excludes the spirits sector. Data not published by the Australian Bureau of Statistics. na Not available.

materials used in food (the farm and fishing sectors) through the export, import and processing sectors to domestic sales to consumers. The key components of the food supply chain in 2004-05 in terms of value are shown in figure A and the main statistics are summarised in table 1.

Australian food industry employment

In 2004-05, total employment in food and beverage manufacturing rose by more than 25 000 positions or 15 per cent to over 194 000 (appendix table 3.1). This followed a fall of over 11 000 people or 6 per cent in the sector in 2003-04 as a result of the widespread drought of 2003. As an employer, the food industry has recovered from the drought more quickly than employment in agriculture as a whole. Total agriculture related employment fell by 2.5 per cent from 320 000 in 2003-04 to 312 000 in 2004-05.

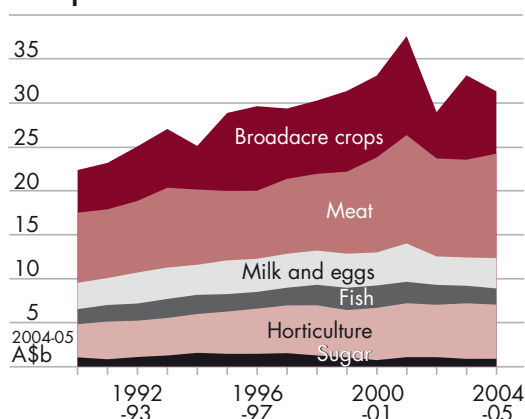
The major contribution to the increase in jobs in food and beverage manufacturing was from the food, beverage and tobacco nec segment (up 211 per cent between 2002-03 and 2004-05 to 23 800 positions), beverages and malt (up 26 per cent to 29 500) and bakery products (up 13 per cent to 32 000). However, over the same two year period, employment fell by 36 per cent in fruit and vegetable processing (to 8500 jobs) and 17 per cent in the dairy product processing segment (to 16 000). As a consequence, the food and beverage manufacturing industry increased its share of total manufacturing sector employ-

ment from 16 per cent in 2002-03 to 18 per cent in 2004-05.

Australian farm and fisheries production

The 3 per cent fall in the value of Australian farm production in 2004-05 mainly reflected a 24 per cent drop in the value of broadacre crop production to \$7.1 billion, from \$9.4 billion in 2003-04 (figure B). In 2004-05, the grain harvest in south eastern Australia was adversely affected by dry conditions at critical times during the crop growing period, falling significantly from the record broadacre crop harvested in 2003-04. Barley,

B Value of Australian farm and fisheries production



wheat and canola production was particularly affected in 2004-05, falling by 38 per cent, 22 per cent and 10 per cent respectively.

The fall in crop returns was in contrast to a 9 per cent rise in the combined value of livestock slaughterings and livestock products (milk and eggs) — up to more than \$15.3 billion in 2004-05. Buoyant beef and dairy product prices accounted for most of this rise in value.

For 2005-06, the gross value of Australian farm and fisheries food production is forecast to rise by 4 per cent to around \$32.7 billion. The main drivers of the increase are a forecast 18 per cent rise in the value of crop production following better than expected yields and an 8 per cent increase in the value of milk production as a result of forecast higher milk prices and output.

Australian food processing

The most recently available Australian Bureau of Statistics (ABS) data on the Australian processed food industry at the time of publication of this report was 2002-03. In 2002-03, the industry's total sales and service income was around \$66 billion and industry value added nearly \$17 billion. The food and beverage sector is the largest in the Australian manufacturing industry, providing almost 20 per cent of industry value added and 22 per cent of total sales and services income in 2002-03. The food and beverage sector also consistently accounts for about 20 per cent of employment in Australia's manufacturing sector.

Australian food retailing

Total retail food turnover rises in 2004-05

Retail turnover of food and liquor in 2004-05 increased by 3.5 per cent on 2003-04 levels to \$91.8 billion. This result was in line with an almost 4 per cent rise in total retail turnover in 2004-05, and thus maintained food and liquor's historical share of total retail turnover of around 46 per cent. Part of the rise in food and liquor turnover can be attributed to rising dairy product prices; for example, retail prices for butter increased by 13 per cent in 2004-05 and cheese

prices by 8 per cent. Prices for major meat and seafood products also increased in 2004-05, most notably, beef and pig meat prices, which increased by 4 per cent.

Overall, the percentage increase in food prices was less in 2004-05 than in 2003-04; the food component of the consumer price index increased by 1.6 per cent in 2004-05 compared with 3 per cent in 2003-04.

Supermarkets and grocery outlets continued to capture the majority of food sales in Australia, accounting for around 62 per cent of the value of total food and liquor retailing in 2004-05. The shares of the other main food and liquor retail outlet categories have remained relatively constant in recent years, with cafes and restaurants accounting for 12–13 per cent and takeaway food outlets just under 10 per cent of total food sales since 2001-02.

A sector not included in the above discussion of retail turnover of food and liquor is clubs, pubs, taverns and bars. Although this sector is very important in liquor and food sales, data cannot be included in the most recent Australian food and beverage aggregates because of the way in which these data are collected in the regular monthly retail sales survey and the timing of the specific clubs, pubs taverns and bars sector survey that is undertaken every three years by the ABS.

For the regular retail turnover survey that the ABS undertakes on a monthly basis, the ABS only collects data for the sector as a whole. In the specific sector survey, the ABS collects data not only covering separate liquor and food sales but also data on gambling and other (entertainment and membership fees) income. The last survey undertaken on clubs, pubs, taverns and bars was published by the ABS in 2002 and covered 2000-01.

Presented in table 2 are disaggregated sales data for 1998-99 and 2000-01. As can be seen, liquor and food sales made up over 70 per cent of total income received within the sector and in 2001-02 represented more than 8 per cent of retail sales of food and beverages in Australia. However, it can also be seen that the proportion of income received from gambling and other sources is increasing. For example, in 1998-99,

2 Turnover in clubs, pubs, taverns and bars

		1998-99	2000-01
Sale of liquor and other beverages	\$m	5 612.6	5 681.7
Takings from meals and food sales	\$m	667.4	825.7
Total food and liquor sales	\$m	6 280.0	6 507.4
Gambling income	\$m	1 295.6	2 121.3
Other	\$m	379.8	378.5
Total gambling and other income	\$m	1 688.0	2 499.8
Total income	\$m	7 955.4	9 007.2
Food and liquor share	%	78.9	72.2

Source: ABS, *Clubs, Pubs, Taverns and Bars, 2000-01*, cat. no. 8687.0, Canberra.

21 per cent of income came from non food and liquor sales; in 2000-01 this had increased to 28 per cent. Therefore, it would be difficult to estimate the proportion of total sales in 2004-05 that could be related to liquor and food sales from this sector, to include in total Australian food and beverage sales for 2004-05.

Weekly household expenditure

Every five years, the ABS undertakes a survey of Australian household expenditure, including food and beverage outlays. These survey data provide a snapshot of household expenditure at

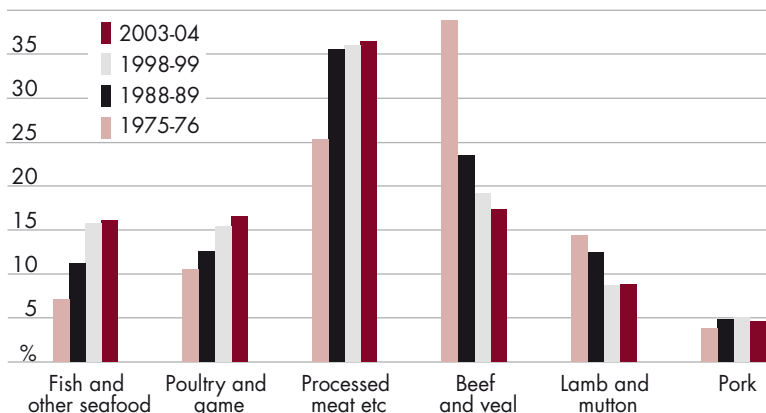
particular points in time, and record how household spending on different food and beverage items has changed over time. The data show the amounts spent on different food and beverage product categories, and the importance of different categories as a proportion of total household expenditure. The results are now available for the latest survey conducted in 2003-04.

In the five years since 1998-99, average household expenditure on food and beverage items increased by over 1 per cent to \$176 a week in 2003-04 in real terms. This compares with a rise in total weekly household expenditure over the same period of 7 per cent to \$883 in real terms. This represents a decline in food and beverage spending as a proportion of total weekly spending from 21 per cent to 20 per cent, and is part of a gradual longer term fall from 23 per cent in 1975-76.

Changes are also evident in the expenditure patterns within household spending on different food and beverage categories. For example, expenditure on meat and seafood fell from 20 per cent of total food and beverage expenditure in 1975-76 to under 14 per cent in 2003-04, expenditure on dairy products fell from 9 per cent to 6 per cent and alcoholic drinks from 16 per cent to 13 per cent. On the other hand, expenditure on meals out and takeaway food increased from 15 per cent in 1975-76 to 24 per cent in 2003-04.

However, these observations mask underlying changes in expenditure on specific food and

C Shares of meat and seafood expenditure



beverage types within the broad food and beverage categories. For example, while spending on meat and seafood has fallen in the overall weekly household budget, there has been an increase in spending on poultry and game from 10 per cent of total meat and seafood weekly expenditure in 1975-76 to 17 per cent in 2003-04; in spending on fish and other seafood from 7 per cent to 16 per cent; and on processed meat from 25 per cent to 37 per cent (figure C).

In contrast, expenditure on beef and veal products fell from 39 per cent in 1975-76 to less than 17 per cent in 2003-04, and spending on lamb and mutton from 14 per cent to 9 per cent.

Similarly, within the alcoholic drinks category, preferences have shifted away from beer, down from 67 per cent of total category spending in 1975-76 to 40 per cent in 2003-4, to wine, up from 14 per cent to 27 per cent, and spirits and other drinks, up from 19 per cent to 33 per cent from 1975-76 to 2003-04.

While proportionately less is now spent on dairy products in the overall weekly budget, cheese has increased its share in the dairy products category, from 15 per cent to 27 per cent over the period, and other dairy products from 8 per cent to 19 per cent. The dairy products that lost share were fresh milk and butter (figure D).

Changes in relative spending on fruit and vegetables are also noteworthy. Potatoes (down from 11 per cent of spending in the category to 6 per cent) and other frozen and processed vegetables

(down from 15 per cent to 11 per cent) declined in favour of fresh fruit (up from 31 per cent to 37 per cent of category total spending) and other fresh vegetables (up from 31 per cent to 35 per cent). These changes may reflect dietary preferences for fresher and more nutritious foodstuffs and the increased availability of these products in supermarkets.

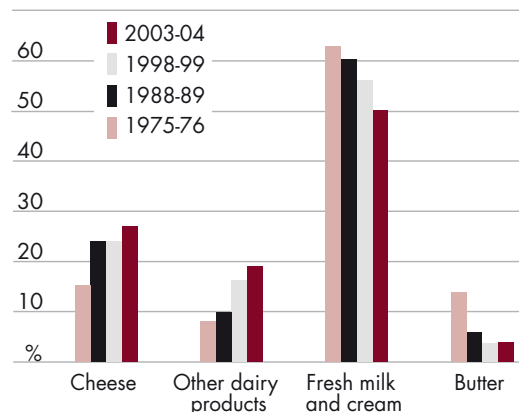
Australian food trade

The value of Australian food exports rose by 9 per cent to \$24 billion in 2004-05, after a combined fall of 17 per cent over the previous two years, from \$26.6 billion in 2001-02 to \$22.1 billion in 2003-04 (figure E). This followed a return to around average seasonal conditions in

E Trends in Australian food trade



D Shares of dairy product expenditure



calendar years 2004 and 2005, recovery from the impacts on Australian food exports to the Asian restaurant sector of the 2003 Severe Acute Respiratory Syndrome (SARS) epidemic and rising export prices for sugar, beef and dairy products in 2004-05.

Exports of substantially transformed products rose significantly in 2004-05

In 2004-05, the export returns of food products within the substantially transformed categories rose by 14 per cent to \$16.7 billion. The export value of processed meat products was up 21 per cent to over \$7 billion, dairy exports up 9 per

cent to \$2.5 billion and refined sugar up 40 per cent to \$1.4 billion. The overall prosperity of the export food sector depends considerably on the fortunes of substantially transformed exports, as it is this sector that historically accounts for about two-thirds of the value of Australian food exports.

... while exports of minimally and elaborately transformed products fell

In contrast, the value of exports within the minimally and elaborately transformed categories fell by 2 per cent and 3 per cent to \$6.9 billion and \$332 million in 2004-05 respectively. Trends of note within the minimally transformed export category were the 14 per cent fall in fish and shellfish exports to \$584 million, the 7 per cent fall in live animal exports (excluding fish) to \$555 million and the 10 per cent fall in oilseeds exports to \$492 million. These falls were partly offset by an 8 per cent rise in the export value of vegetables, fruit and nuts, to \$616 million.

Beverage exports

In the beverage and malt category, the value of exports increased by nearly 7 per cent to \$3.1 billion in 2004-05. Wine exports rose by 9 per cent to \$2.7 billion, while beer and malt exports fell by 15 per cent to \$241 million. The wine industry has been a strong contributor to growth in the value of Australian beverage exports since 1999-2000, with a trend growth rate of around 20 per cent in constant dollar terms. The United States and the United Kingdom are the primary importers of Australian wines, with each accounting for over 30 per cent of wine exports by value in 2004-05.

Overall growth in trade

Figure E shows the overall trend in the value of Australian food exports and imports in constant dollar terms over the fourteen years to 2004-05. Over this period, imports grew steadily at around 5 per cent a year. Until the drought of 2002-03, the value of food exports grew at over 7 per cent a year. An 8.6 per cent recovery in food export values in 2004-05, driven by more favourable weather conditions, may signal a return to the historical upward export trend line.

A detailed overview of Australian food exports and imports, by sector, over the period 1989-90 to 2004-05 is provided in figure F. The grains, meat, wine and dairy products industries have contributed significantly to the absolute growth in Australia's food export earnings. In contrast, the contributions, from the processed seafood, processed fruit and vegetables, oil and fat, bakery products, soft drink, cordial and syrup, and beer, malt and spirits industries have all declined in absolute value terms as a result of increased competition from imports.

Australia's main food exports

In figure G the relative contribution of different food categories to the total value of food exports in 2004-05 is outlined. Also included in figure G is a comparison of the contribution made by each category for 1990-91 and 2003-04. The importance of meat and grains is clearly evident, with meat accounting for nearly 30 per cent of the value of food exports in 2004-05 and grains around 20 per cent.

Also of note is the significant increase in the contribution of wine to total food exports, increasing from 2 per cent of total food exports in 1990-91 to 11 per cent in 2004-05. This reflects a considerable diversification in the mix of Australian food exports over the period.

Markets for Australia's food exports

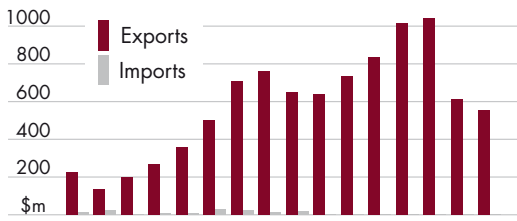
Australia's food export markets have also diversified over the past fifteen years (figure H). While the share of Australia's exports to Japan and the United States has declined slightly since the early 1990s, other destinations have grown in importance. For example, the shares of exports going to both Indonesia and the United Kingdom increased from 2 per cent in 1990-91 to 5 per cent in 2004-05, to China from 3 per cent to 5 per cent, the Republic of Korea from 4 per cent to 6 per cent and both New Zealand and Malaysia from 2 per cent to 4 per cent.

Australia has benefited from the capacity to supply high quality food products not only to relatively close Pacific Rim markets (figure I), but has also established a growing presence in more distant markets such as Saudi Arabia and the United Kingdom over the past fifteen years.

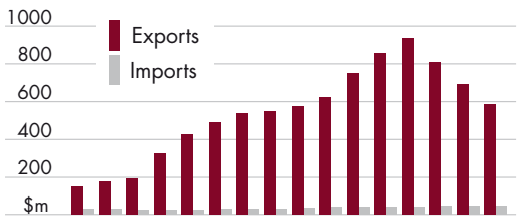
F Australian food exports and imports, by sector

In 2004-05 dollars

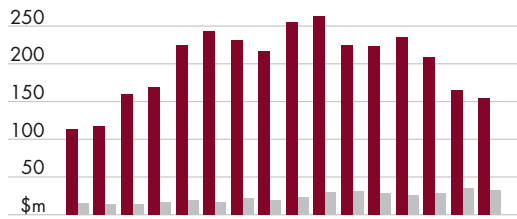
Live animals



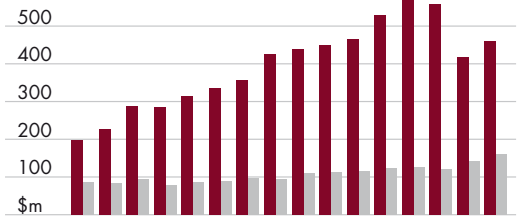
Fresh/chilled fish



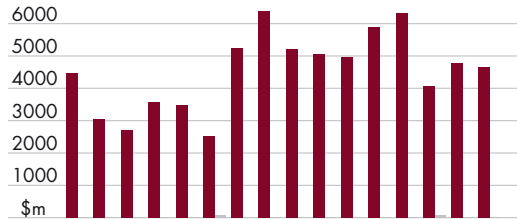
Fresh/chilled vegetables



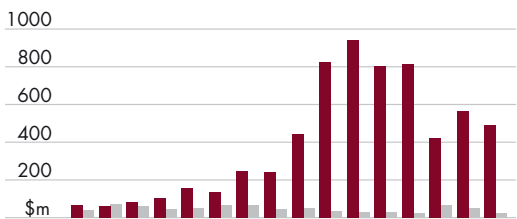
Fresh/chilled fruit and nuts



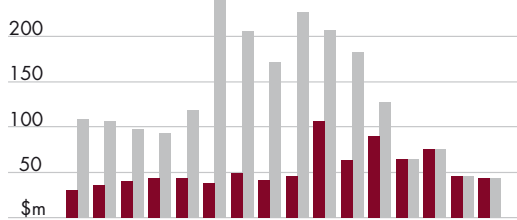
Grains



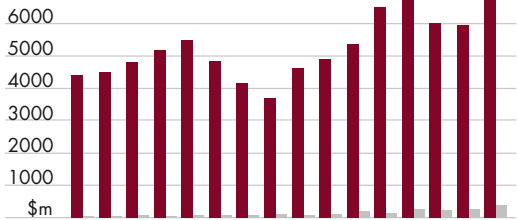
Oilseeds



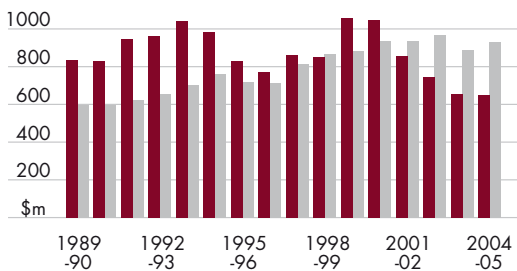
Other unprocessed food



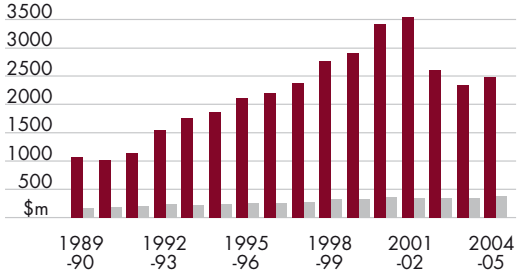
Meat



Processed seafood

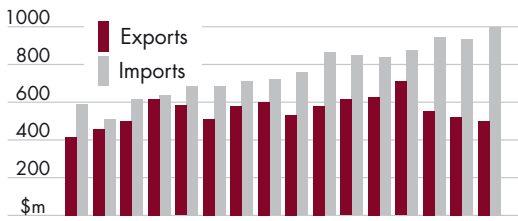


Dairy products

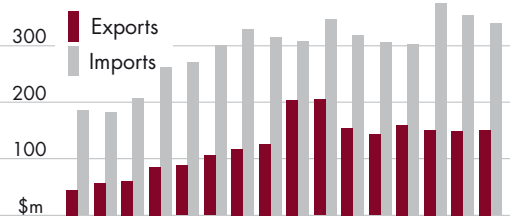


F Australian food exports and imports, by sector

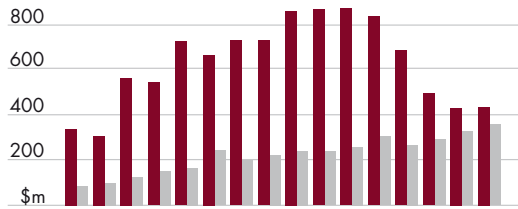
In 2004-05 dollars
Processed fruit and vegetables



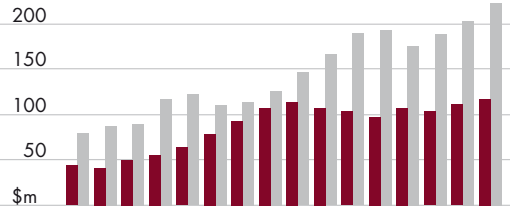
Oil and fat



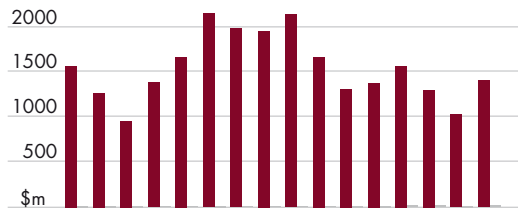
Flour mill products



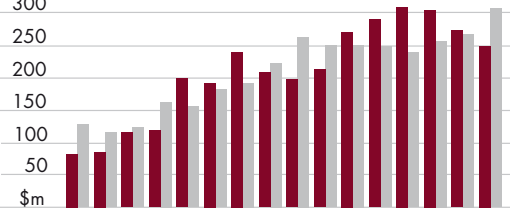
Bakery products



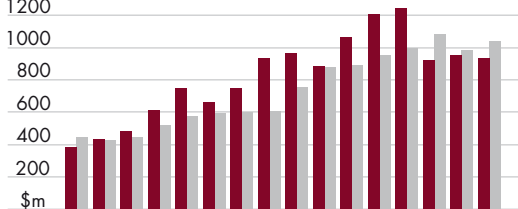
Sugar



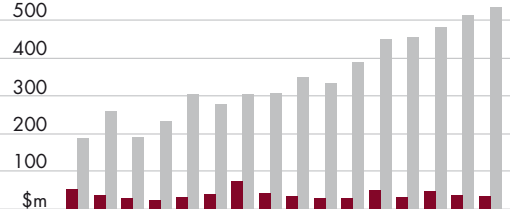
Confectionery



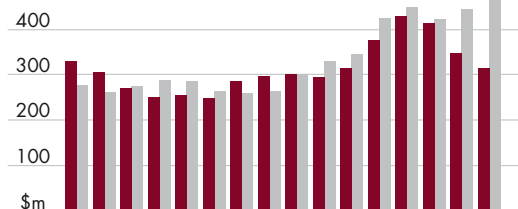
Other processed food



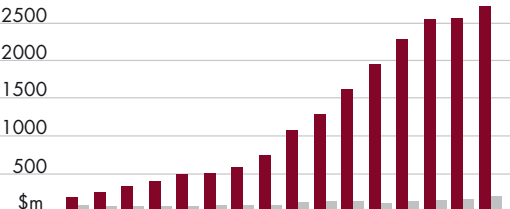
Soft drink, cordial and syrup



Beer, malt and spirits



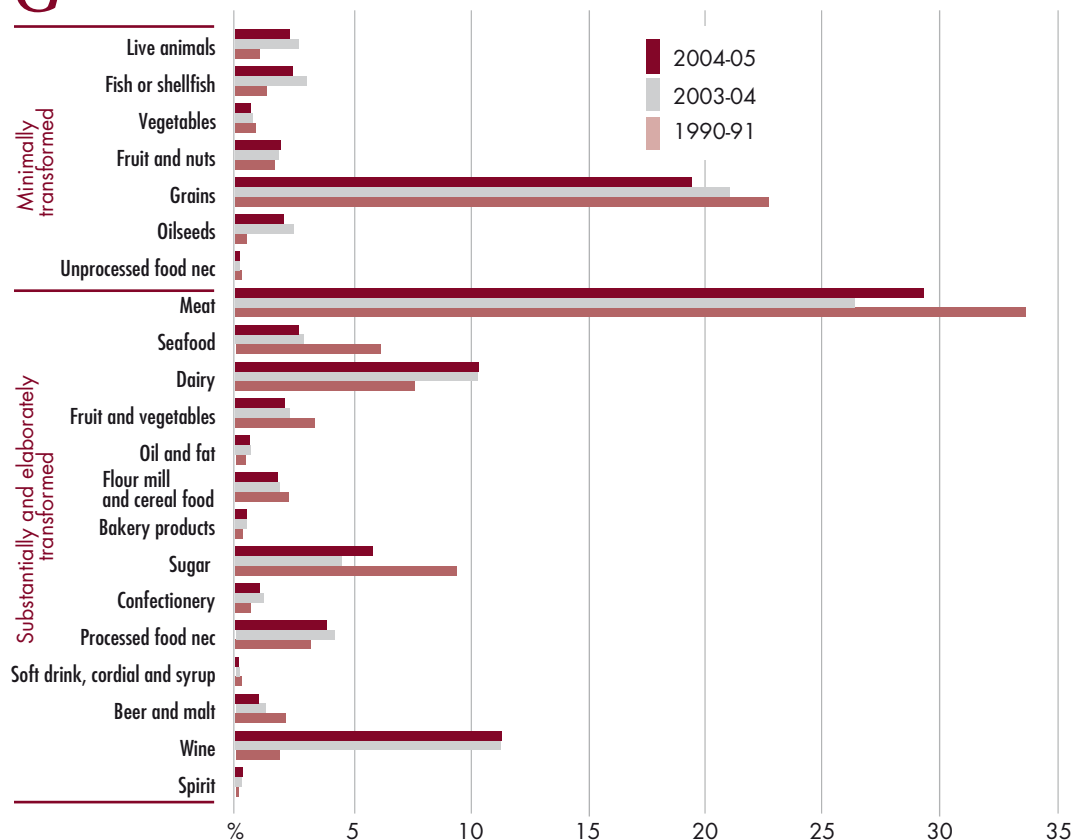
Wine



1989 -90 1992 -93 1995 -96 1998 -99 2001 -02 2004 -05

1989 -90 1992 -93 1995 -96 1998 -99 2001 -02 2004 -05

G Composition of Australian food exports



The United States is expected to increase in relative importance again in future years following the signing of the free trade agreement (FTA) with Australia in 2005.

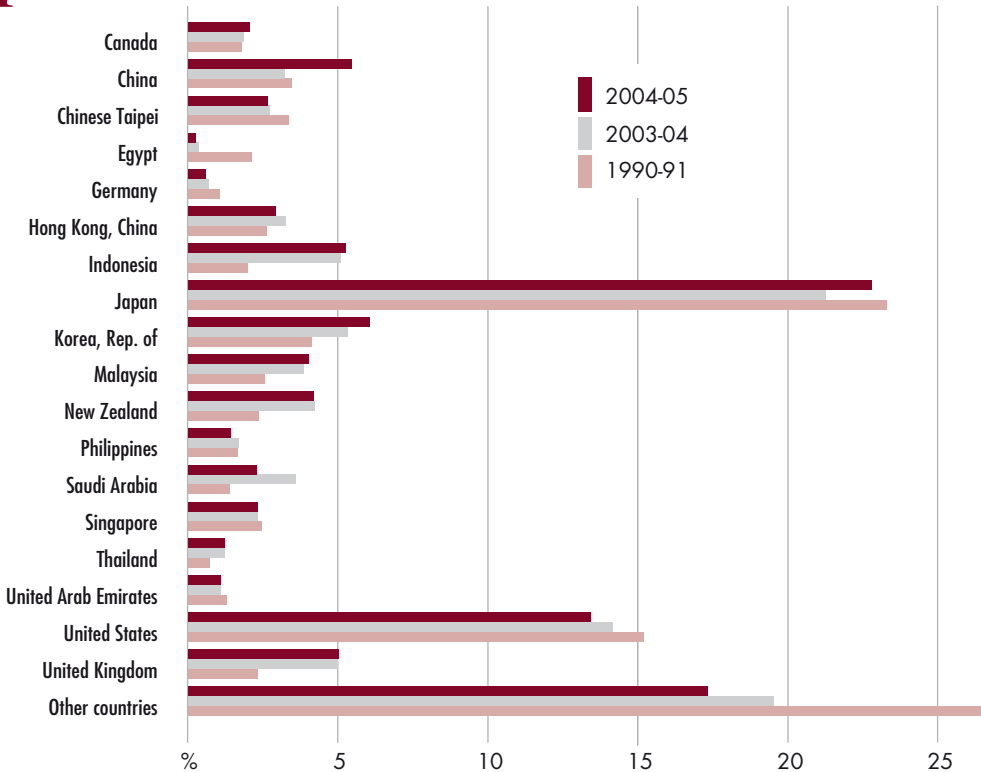
Benefiting from free trade agreements

Australia implemented free trade agreements with both the United States and Thailand on 1 January 2005, and Australian food exporters may benefit from those preferential trade arrangements. For example, the Australia–Thailand FTA now ensures greater access for Australian food products into Thailand, and makes the majority of Australian exports to Thailand tariff free. Thailand is already an important market for Australian food exports, with food exports totalling \$295 million in 2004-05. Grains and dairy products constitute the bulk of these exports, while seafood is the main import from Thailand.

In 2004-05, Australia increased its substantial net food trade balance with the United States by 1 per cent to over \$2.6 billion. Total exports to the United States increased by 3 per cent to more than \$3.2 billion in 2004-05, while food imports from the United States rose by 11 per cent to \$569 million. The main Australian exports in 2004-05 were meat products (57 per cent of total value) and wine (27 per cent). The dominant imports were fruit and vegetables (27 per cent of total value) and spirits (22 per cent).

Australia is currently negotiating additional FTAs with other key trading partners. For example, Australia and China have agreed to commence negotiations on an FTA. Australia is also negotiating bilateral FTAs with Malaysia and the United Arab Emirates, as well as participating in discussions on a joint ASEAN–Australian–New Zealand trade arrangement.

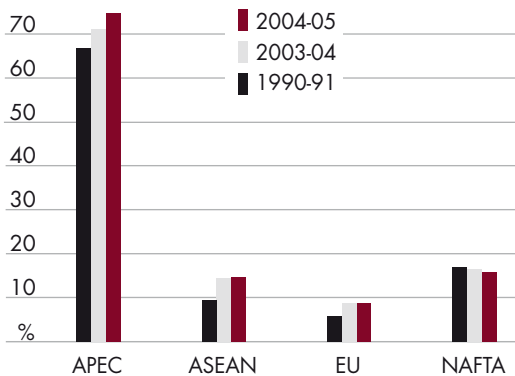
H Value shares of Australian food exports, by country of destination



Potential ASEAN and China FTAs are particularly important developments for Australian food exporters. Australian food exports to ASEAN member countries stood at \$3.5 billion in 2004-05, up 9 per cent from 2003-04, and with

a positive net trade balance of nearly \$2.6 billion in 2004-05. The growth in Australian food exports to China was considerable in 2004-05, increasing by 85 per cent to total \$1.3 billion. This generated a \$930 million food trade surplus with China, up 127 per cent on net exports of \$409 million in 2003-04. The increase in trade to China in 2004-05 was driven by a 160 per cent increase in grain exports.

I Value shares of Australian food exports, by country destination groupings



Airfreighted food exports

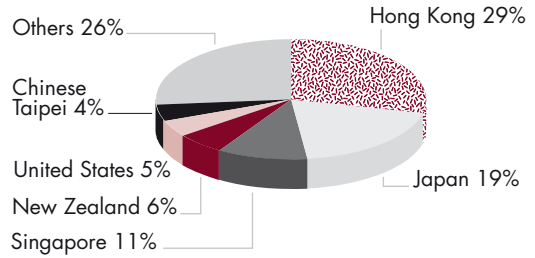
Airfreighted food exports fell by 12 per cent in 2003-04 when SARS cut tourism and restaurant sector turnover in Asia. This lowered Asian demand for quality fresh and perishable food products airfreighted from Australia. Airfreighted food exports fell as a share of total Australian food export value, from 6.4 per cent in 2002-03 to 5.7 per cent 2003-04.

While their value increased slightly in 2004-05 (by 0.4 per cent), airfreighted food exports

continued to decline as a share of total Australian food exports to 5.3 per cent. The increase in airfreight food exports in 2004-05 contributed very little of the 9 per cent growth in total exports in 2004-05 (discussed earlier).

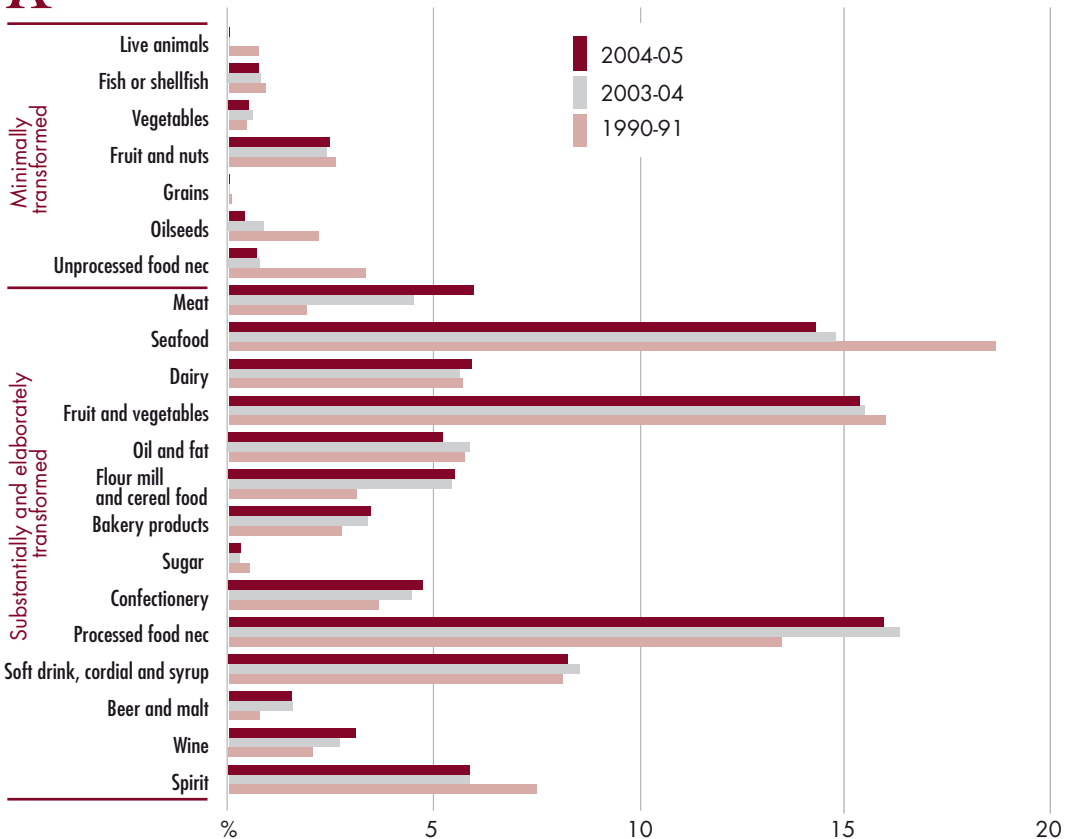
Airfreighted food exports have declined significantly (by 25 per cent) from their peak of \$1.7 billion in 2001-02 to less than \$1.3 billion in 2004-05. The impact on the competitiveness of Australian airfreighted food exports of the appreciation of the Australian dollar from an average US\$0.71 in 2003-04 to US\$0.75 in 2004-05 (and compared with US\$0.52 in the airfreight peak year of 2001-02) may have also contributed to the value of air freighted exports from Australia declining. The upward pressure on airfreight rates from the sharp rise in oil prices over the period may also help explain this trend.

J Value shares of Australian airfreighted exports, by destination, 2004-05



The main destinations for Australia's airfreighted exports in 2004-05 were Hong Kong, Japan and Singapore, which together accounted for nearly 60 per cent of the total value in 2004-05 (figure J).

K Composition of Australian food imports



Australian food imports

Australian food imports rose by 10 per cent to \$6.5 billion in 2004-05, as a result of a 47 per cent increase in processed meat imports (to \$387 million), a 16 per cent rise in dairy imports (to \$384 million), an 11 per cent increase in beverage imports (to \$1.2 billion) and a 9 per cent rise in processed fruit and vegetable imports (to \$1 billion).

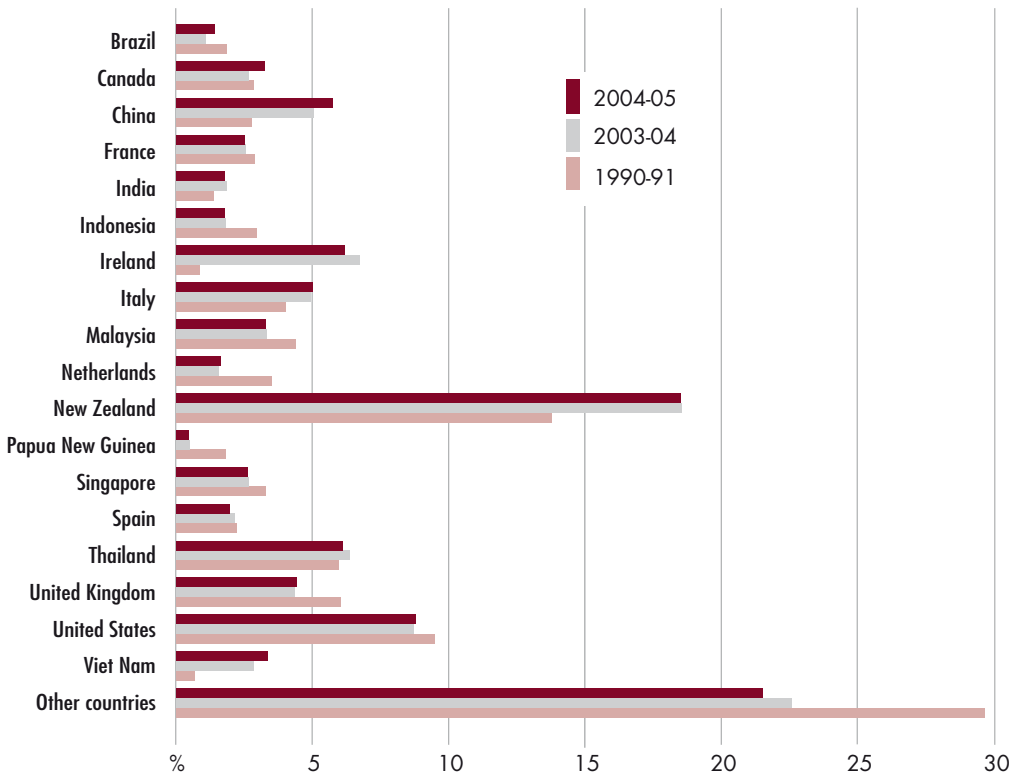
Processed (substantially and elaborately transformed) foods make up around 95 per cent of the total value of food imports. While the import shares of processed fruit, vegetables and seafood products have declined in importance over the past fifteen years, the import shares of other products, such as processed meats, flour mill and cereal food, confectionery, bakery products, wine, and beer and malt, have increased (figure K).

New Zealand dominates Australia's imports, but imports from other countries rising

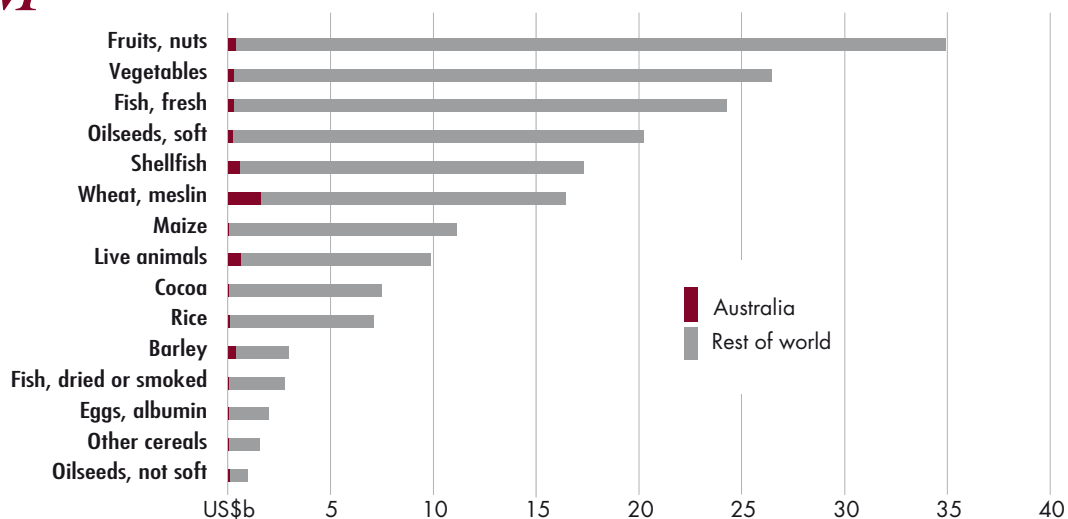
New Zealand is the main source of Australia's food imports, accounting for \$1.2 billion or 18 per cent of total Australian food imports in 2004-05. New Zealand's share of Australia's food imports has increased steadily in the past fifteen years from 14 per cent in 1990-91 (figure L). Other countries to increase share over this period are China, Italy, Ireland and Viet Nam.

The implementation of FTAs with the United States and Thailand, Australia's second and fourth most important sources of imports respectively in 2004-05, is expected to result in increased food imports from these countries in coming years.

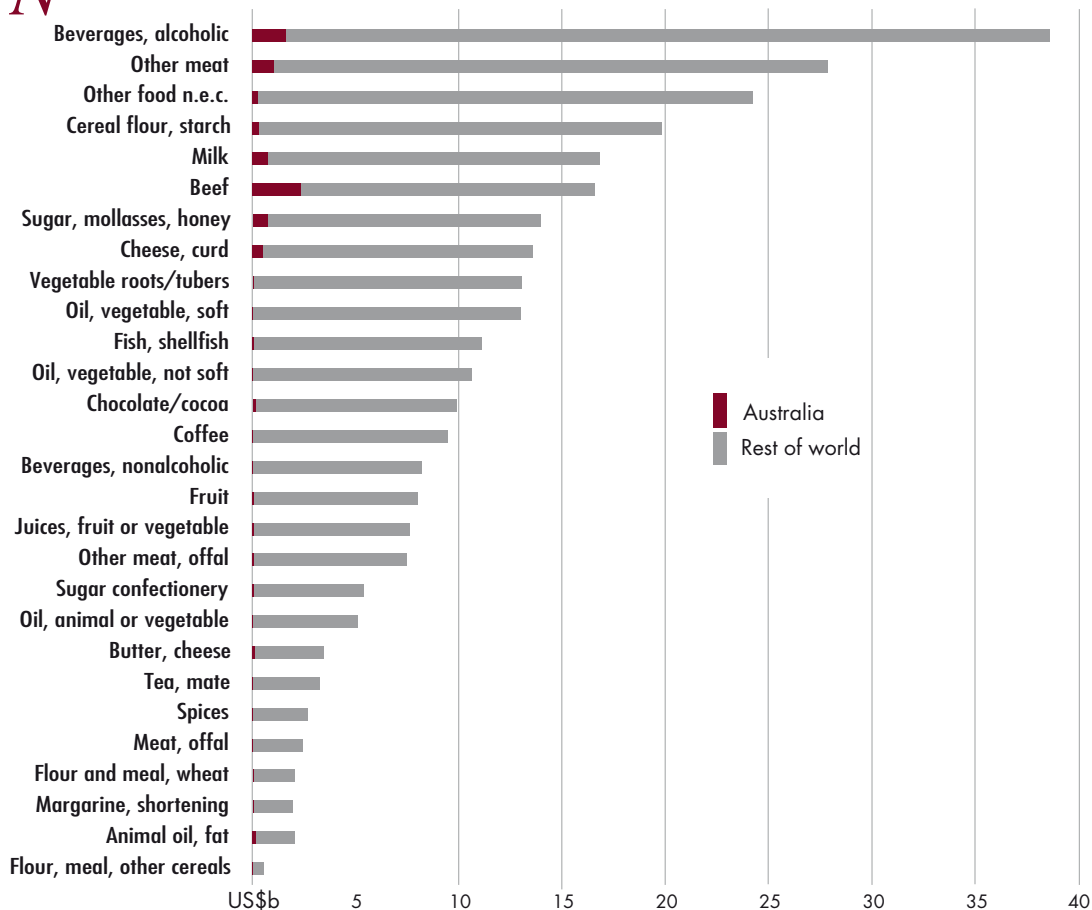
L Value shares of Australian food imports, by country of origin



M World exports of minimally transformed food, 2003



N World exports of substantially transformed food, 2003



World food trade

Total world food exports were valued at around US\$509 billion in 2003, which was an increase of nearly 17 per cent from 2002. The most traded minimally transformed food items in value terms are fruit and nuts, vegetables, fish and shellfish, grains and oilseeds (figure M).

For Australia, the value of food exports fell by 5 per cent in 2003 to US\$13.4 billion. As a result, Australia went from being the world's eleventh largest exporter of food in 2002 to the thirteenth largest in 2003, accounting for just 2.6 per cent of world food exports (table 3). Minimally transformed products were most affected, falling from 40 per cent of total Australian food exports in 2002 to 32 per cent in 2003. This was caused mainly by a 33 per cent fall in the value of Australian barley, wheat, oilseed and vegetable exports as a result of the widespread drought. In average seasons, these products collectively make up over 60 per cent of Australia's minimally transformed food exports.

Substantially and elaborately transformed or processed products constitute the majority (64 per cent) by value of total food exports. Of those exports, the most important products are alcoholic beverages (12 per cent of the total value in this category), fresh, chilled or frozen meats (9 per cent), other foodstuffs and cereal flour and starch (figure N). Australia's largest shares of processed food exports are beef and other meat, alcoholic beverages (mostly wine), dairy products and sugar.

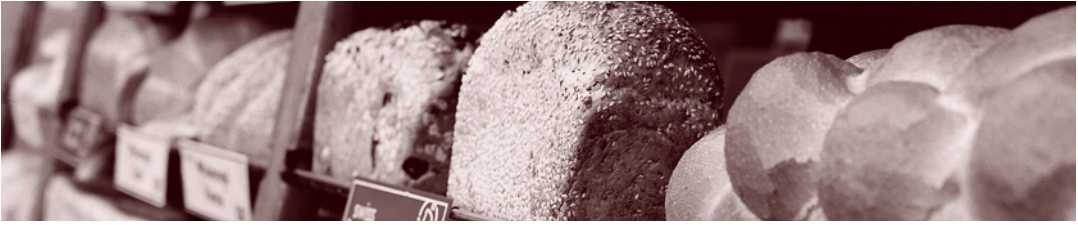
Generally, the world's largest food exporters are also the world's largest importers (table 3). The major food importers are the United States, Japan and the high wealth, industrialised countries of western Europe (France, Germany and the United Kingdom). These countries import high value food products that are either under-supplied by their own agricultural and fisheries

3 Main food trading countries, by value of trade, 2003

Rank	Country	Share %
Exporters		
1	United States	10.9
2	France	8.3
3	Netherlands	7.0
4	Germany	6.1
5	Spain	4.8
6	Belgium	4.4
7	Canada	4.0
8	Italy	4.0
9	Brazil	4.0
10	China	3.8
13	Australia	2.6
Importers		
1	United States	11.6
2	Japan	8.7
3	Germany	8.3
4	United Kingdom	6.8
5	France	5.8
6	Italy	5.0
7	Netherlands	4.5
8	Belgium	4.0
9	Spain	3.8
10	China	2.9
24	Australia	0.8

food industries or cannot be grown under their climate (such as tropical fruit). Fish and shellfish, fresh, chilled and frozen meats, fresh and processed fruit, nuts and vegetables and alcoholic beverages accounted for 50–65 per cent of total food imports, by value, in these (five) importer countries in 2003.

For the largest two food importers, fish and shellfish constituted 29 per cent of total Japanese food imports and 20 per cent of US food imports. The other notable food imports for Japan were fresh, chilled and frozen meats (17 per cent of the total food import bill) and for the United States, alcoholic beverages (17 per cent).



FUNCTIONAL FOODS

benefits based on scientific evidence

Professor Linda Tapsell, Director, National Centre of Excellence in Functional Foods, University of Wollongong, New South Wales

Functional foods are foods promoted on a health platform based on scientific evidence (Tapsell et al. 2005). They include minimally transformed foods (such as fruit and vegetables), containing known bioactive components, as well as substantially and elaborately transformed food products, including foods and beverages with known or added bioactive ingredients. The difference between functional foods and all other foods in these categories is that the benefits of the functional foods have been scientifically substantiated. The investment in science enables the product to be differentiated in the market place and, from a regulatory perspective, opens opportunities for more favourable claims.

With Australia's profile of food production, processing and export, the opportunities for functional food development are extensive. Primary products such as grains, dairy, fruit, vegetables, meat and fish all have the potential to capitalise on their intrinsic nutritional value in the functional food market — and this in addition to their known value as core foods. Existing knowledge of components with known effects in these products is a starting point (table 1).

Grains

Research on the benefits of wholegrains has focused on heart health and the prevention of cancer. Clarified definitions of wholegrains (Food Standards Australia New Zealand 2005) will enable manufacturers access to the benefits of wholegrains in their products. In addition, the unique properties of all grains can be exposed through research that identifies bioactive com-

ponents and/or demonstrates the benefits of the food matrix that characterises the grain. Examples of these include wheat, maize, barley and oats.

Meat and fish

The nutritional value of red meat has been well demonstrated in a number of studies, focusing on particular ingredients — for example, iron, pro-

1 Examples of bioactive components in primary products

Food	Bioactive
Fruit and vegetables	
Carrots	α -carotene
Tomatoes	Lycopene
Citrus fruits	Flavonones
Broccoli	Sulphorane
Jerusalem artichokes	Pre-biotics
Soybeans	Phytoestrogens
Onions	Sulfides
Cranberries	Tannins
Grains	
Wheat bran	Insoluble fibre
Oats	β -glucan
Corn	Stanol esters
Flax	Lignans
Meat products	
Gelatin	Collagen hydrolysate
Meat	CLA
Fish	
Tuna, marine oils	Omega-3 fatty acids
Dairy	
Yoghurt	Lactobacillus
Cheese	CLA

Adapted from Lupien (2005).

tein, or the food matrix itself. The added value of meat in products has yet to be fully explored with developments in processed products, but the position in the overall diet will need to be considered. The need for omega-3 fatty acids in the diet creates a huge advantage for fish and fish oil markets. There appear to be some advantages for both meat and fish in contributing to the protein level of diets for weight control (Astrup 2005).

Fruit and vegetables

Recent research has led to a greater appreciation of fruit and vegetables' nutritional value beyond known vitamins, minerals and fibre. Most significantly, the negative findings of intervention trials with isolated vitamin supplements in the face of the potential protective effects from fruit and vegetables have drawn attention back to benefits of the whole food (Duffield-Lillico and Begg 2004).

Dairy

Opportunities for functional food development with dairy ingredients have been well established for some time. Dairy research has also capitalised on the concept of bioavailability of key nutrients, and the impact of the food matrix, as opposed to individual bioactives on health outcomes (Nestle, Chronopolus and Cehun 2005).

Key drivers for functional foods

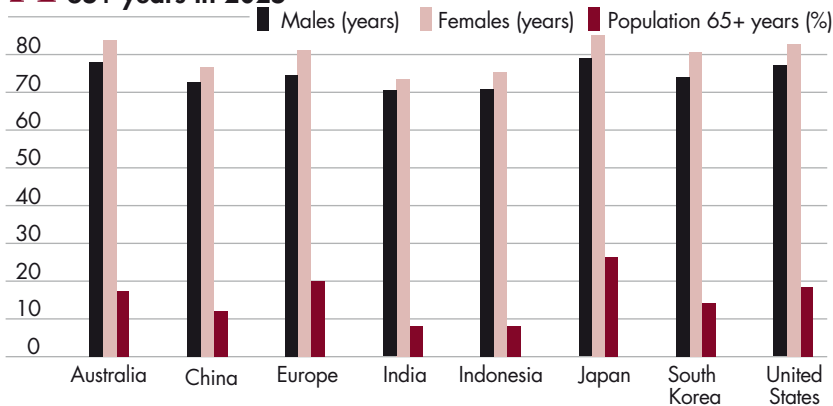
Older people, kids, baby boomers and generation Xers

Population age demographics and health profiles provide a significant backdrop for identifying markets for functional foods across the globe. Key statistics for age demographics are the percentage of the population aged 65 years and over (figure A), the number of children in the population (and in households) (figure B), and the main age cohort groups — the baby boomers and generation X (figure C).

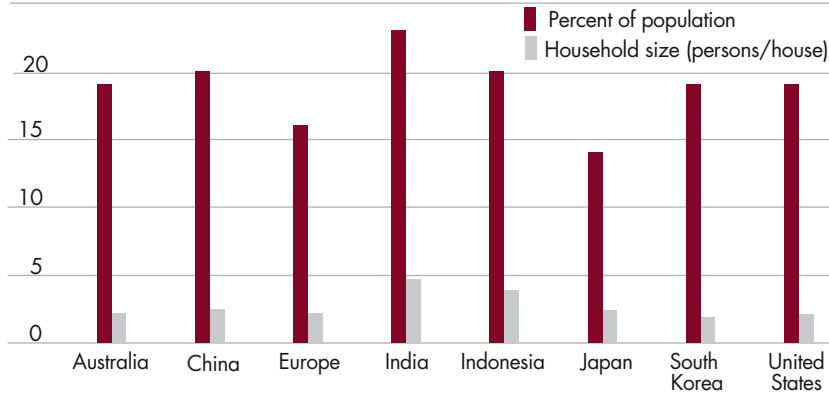
Life expectancy is increasing in most of the world's regions, meaning that there will be greater numbers of older people and by sheer weight of numbers they need to keep healthy. Japan was one of the first countries to recognise this, and the connection to food. The FOSHU system (Foods for Specified Health Use) was introduced in response to the recognised health-care related costs associated with aging (Arai et al. 2001).

The changing face of modern society is also resulting in fewer children per household unit (figure B) in most developed market areas. This also comes with a substantial change to the environment of the child. It provides for a greater focus on individual needs, in a context of greater awareness of safety and health issues, as well as the influence of technology, such as computers. There is argument that this new environ-

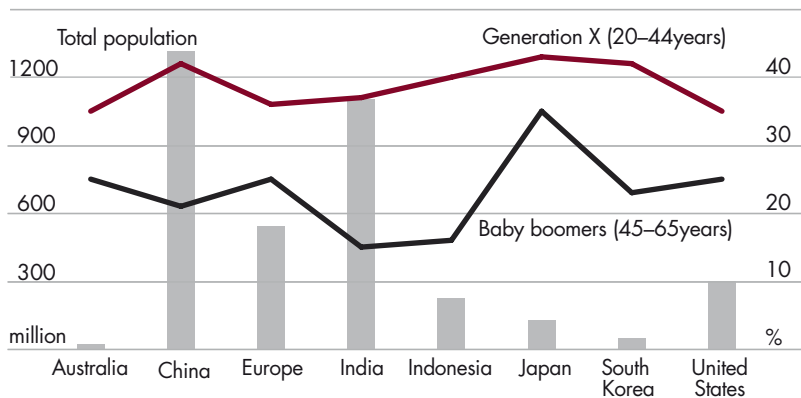
A Predicted life expectancy and percentage of the population aged 65+ years in 2025



B Predicted percentage of population aged below 14 years and household size in 2025



C Numbers of Generation X and baby boomers



ment is contributing substantially to the alarming increase in childhood obesity, especially in countries like Australia. It is also being seen in developing countries where, at the same time, other groups of children suffer from micronutrient deficiencies (Popkin 2005).

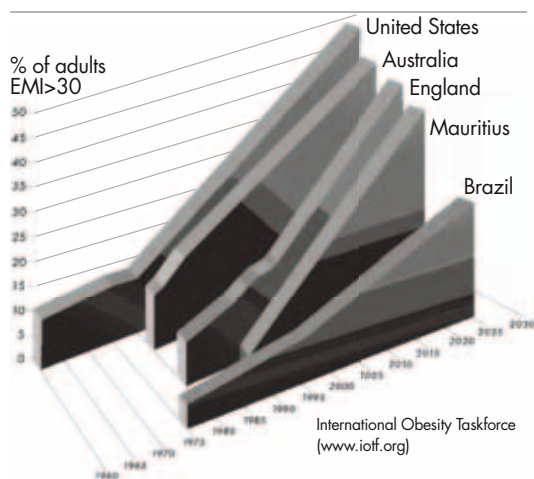
The age group 20–44 years is the largest in the world (figure C). In western societies, this group may be the most responsive to functional foods, having grown up with supplements and with an interest in performance. They are followed in size by the baby boomers (45–65 years), who will constitute about a third of the population by 2015. This group has concerns for maintenance of health and prevention/treatment of lifestyle diseases such as overweight,

diabetes, heart disease, as well as issues such as bone and cognitive (memory) health.

Health drivers: the big 3 – obesity, diabetes and heart disease

Obesity is a major public health concern around the globe (figure D). Rates have been increasing substantially not only in western societies, like Australia and North America, but also in China, eastern Europe and the Middle East (WHO 2002). Obesity is linked to the development of type 2 diabetes mellitus. In turn, people with diabetes account for a large proportion of those with coronary heart disease. The situation is of particular concern in India where an increase in the proportion of overweight and obese is

D Obesity projections



expected to more than double in the next twenty years (Leeder et al. 2004). There are countries, like Korea, however, where the prevalence is relatively low but there is concern among consumers that they need to watch their weight. This phenomenon is an indication of the broad public awareness of the problem of obesity and a guarantee that concern for energy balance will be a major consumer need in most areas.

Product development

Knowledge of demographics and food points to opportunities to develop functional foods that address needs in given areas. Foods for weight control would need to target outcomes such as appetite control, portion size, energy density and nutritional value. More specifically, foods for children would need to look at new ideas for snack foods, low energy if associated with sedentary behaviour, or targeted for example to sporting contexts. There is also a need to find ways of introducing vegetables into the diet more often. For older people, a focus on foods that deliver key nutrients, such as omega-3 fatty acids, or target key benefits, such as bone health and memory retention would be appropriate. In all cases, the steps to successful development need careful planning and implementation.

Case study: omega-3 enriched food

Omega-3 is an essential fatty acid around which a great amount of science and technology has developed in recent years. The understanding of the benefits of omega-3 fatty acids to health has been based on a growing body of consistent findings from research. The main source of these fatty acids is fish, and this is good news for the fish industry, but the ability to deliver the volume required is limited and consumers would also benefit from a range of sources. The opportunity thereby lies for foods enriched with omega-3 fatty acids.

Substantially transformed products

One such product is Tip Top Up™ produced by George Westons Foods. The successful launch of this product was the result of identifiable steps in the developmental process. Another Australian company, Goodman Fielder, has supported research on the utility of a range of omega-3 enriched products in the overall diet and found that consumers are quite willing to adopt these products (Patch, Tapsell and Williams 2005).

Minimally transformed products

Various forms of omega-3 exist in plant foods as well, although the benefits, compared with fish oils are still being assessed. One such food is walnuts, where the food matrix delivers not only omega-3s but other polyunsaturated fats, antioxidants, fibre, and large proportions of arginine, an amino acid (part of the protein fraction) that may also deliver health benefits to support energy balance.

Research conducted at the University of Wollongong has shown that including walnuts in the low fat diet for diabetes management enabled patients to achieve the type of dietary profile that helps to manage cholesterol levels – a risk factor for the heart disease seen in diabetes (Tapsell et al. 2004). The research demonstrates that positioning the natural food in a dietary plan that capitalises on the attributes of the food enables its functionality to be exposed and translates into useful messages for consumers and health practitioners (Gillen et al. 2005).

Supporting commercialisation

Clearly the ability to capitalise on opportunities for functional foods requires an innovative process that integrates knowledge from a range of sources. A fundamental link is that between science and food product development (figure E). The National Centre of Excellence in Functional Foods, an initiative of the National Food Industry Strategy (NFIS) of the Australian Government Department of Agriculture, Fisheries and Forestry, works to support this process.

The Centre operates on the basis of two main streams of activity. The strategic science program delivers pre-competitive research co-funded by NFIS and partner organisations: Food Science Australia, the ARC Key Centre for Smart Foods at the University of Wollongong, CSIRO – Health Sciences and Nutrition, and the Department of Primary Industries, Victoria. The business development stream focuses on deliverables for the Australian food industry in the form of:

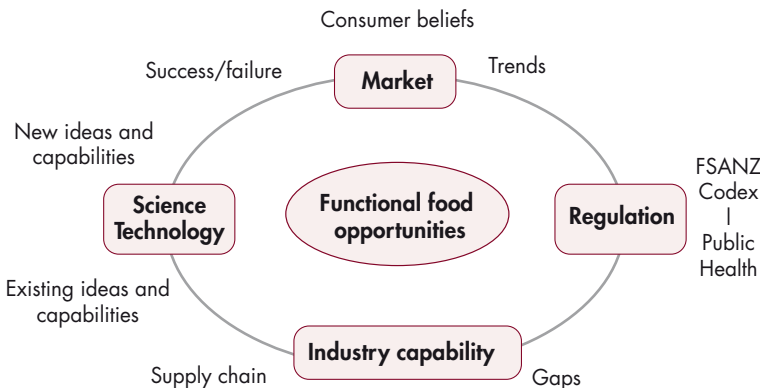
- a subscription service (with e-alerts and conference access)
- fee for service reports on matters such as regulation, substantiation, strategy development and nutrition communications
- Foods for Life program of research projects funded by consortiums of companies/industry groups or individual companies/groups.

For further information on the Centre, visit the web site on www.nceff.com.au.

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E Factors associated with functional food opportunities



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RESEARCH AND DEVELOPMENT

in the Australian food industry

Chris Amber, Food Policy and Communications Section, Department of Agriculture, Fisheries and Forestry

Business investment in research and development (R&D) plays a key role in the health of the economy and delivers strong national benefits through improvements to productivity and competitiveness. It also underpins the growth and expansion of business, including many small and medium sized enterprises.

The Australian Bureau of Statistics (ABS) defines R&D activity as systematic investigation or experimentation involving innovation or technical risk. To be included as R&D the outcome of these activities must be new knowledge or new or improved products, materials, devices or services.

Australia has increased R&D expenditure since 1998-99, both total investment and as a share of gross domestic product (GDP). Business expenditure on R&D (BERD) in Australia in 2003-04 is estimated to have been \$7.2 billion, 10 per cent higher than that recorded in 2002-03 (table 1).

The BERD/GDP ratios for OECD (Organisation for Economic Cooperation and Development) countries for which comparable data are available are shown in table 3. While Australia has increased its investment in R&D from 0.74 per cent of GDP in 2000-01 to 0.89 per cent of GDP in 2003-04, it is still below the OECD average of 1.24 per cent of GDP.

R&D in the Australian food and beverage sector

Research and development in the food, beverage and tobacco industry rose from \$184 million in 1999-2000 to \$260 million in 2003-04, a rise of more than 40 per cent (table 2). The key sectors that contributed to this growth in R&D expenditure include: other foods sector (up 127 per cent), beverages and malt (up 106 per cent), fruit and vegetable processing (up 46 per cent), bakery products (up 46 per cent) and

1 Resources devoted to R&D in Australia

		1996 -97	1997 -98	1998 -99	1999 -2000	2000 -01	2001 -02	2002 -03	2003 -04
Expenditure on R&D									
– at current prices	\$m	4 235	4 221	4 095	4 137	4 983	6 192	6 571	7 220
– chain volume measures ^a	\$m	5 276	5 158	4 896	4 776	5 442	6 508	6 754	7 220
Human resources devoted to R&D									
in person years of effort	yrs	26 412	24 769	25 109	26 507	28 391	32 209	35 567	38 093

^a The reference year for chain volume measures is 2003-04.

Source: ABS, 2003-04 *Research and Experimental Development*, Canberra, 2005.

2 R&D expenditure by food, beverage and tobacco management units

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	change a
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	%
Meat and meat products									
Capital b	1 508	np	2 007	np	826	2 653	3 480	4 765	3.2
Current c	11 446	np	22 598	np	30 481	40 345	39 107	38 612	3.4
Total	12 954	13 889	24 605	35 530	31 307	42 998	42 587	43 376	3.3
Dairy products									
Capital	2 755	1 667	np	6 546	6 148	3 494	545	2 183	0.8
Current	70 122	23 290	21 394	35 903	43 098	38 277	29 050	29 964	0.4
Total	72 877	24 957	71 947	42 449	49 245	41 771	29 595	32 147	0.4
Fruit and vegetables									
Capital	1 477	np	650	2 285	1 651	905	527	1 104	0.7
Current	20 100	np	13 310	14 526	16 131	25 748	29 315	23 380	1.2
Total	21 577	16 638	13 960	16 811	17 782	26 653	29 842	24 484	1.1
Oils and fats									
Capital	np	np	np	np	–	np	np	np	np
Current	np	489	np	np	np	np	542	766	np
Total	np	np	np	np	np	np	np	np	np
Flour milling and cereals foods									
Capital	1 087	5 666	782	1 206	5 863	np	np	3 449	3.2
Current	29 683	38 936	32 221	27 185	27 909	11 535	5 544	25 401	0.9
Total	30 770	44 602	33 002	28 391	33 772	22 336	13 984	28 850	0.9
Bakery products									
Capital	591	2 734	np	1 316	57	np	np	np	np
Current	3 992	7 387	4979	5 388	8586	7896	20 203	6 166	1.5
Total	4 583	10 121	7 392	6 704	8 643	13 643	30 541	9 775	2.1
Other foods									
Capital	15 518	6 207	2 707	3 240	8 039	7 616	7 895	10 718	0.7
Current	58 515	47 901	42 834	35 892	37 236	46 031	54 877	78 240	1.3
Total	74 033	54 108	45 541	39 132	45 275	53 647	62 771	88 958	1.2
Beverages and malt									
Capital	827	3 002	2 002	np	4 886	4 148	3 064	5 872	7.1
Current	9 694	10 595	8 349	np	10 053	24 826	19 845	20 447	2.1
Total	10 521	13 597	10 351	12 806	14,939	28,974	22,909	26,319	2.5
Tobacco products									
Capital	np	np	np	np	np	np	np	np	np
Current	np	np	np	np	np	np	np	np	np
Total	np	np	np	np	np	np	np	np	np
Total food, beverage and tobacco									
Capital	23 988	23 835	45 785	20 875	27 470	20 560	19 304	30 795	28.4
Current	206 970	157 217	163 388	162 888	174 212	210 377	217 296	229 319	10.8
Total	230 958	181 051	209 174	183 763	201 682	230 936	236 599	260 114	12.6
Manufacturing									
Total	2 267 989	2 210 078	2 028 358	2 020 059	2 255 467	2 536 914	2 908 456	3 294 129	45.2

a Change 1996-97 to 2003-04. b Capital expenditure is defined as expenditure on the acquisition of fixed tangible assets such as land, buildings, vehicles, plant, machinery and equipment attributable to R&D activity. c Current expenditure is defined as expenditure on direct labour costs, materials, fuels, rent and hiring, repairs and maintenance, data processing, etc., and the proportion of expenditure on general services and overheads that is attributable to R&D activity. np Not published.

Source: ABS Special Data Request and Department of Agriculture, Fisheries and Forestry.

3 BERD/GDP ratios of OECD countries

	2000 -01	2001 -02	2002 -03	2003 -04
Sweden	na	3.31	na	2.95
Finland	2.41	2.42	2.41	2.46
Japan	2.12	2.26	2.32	2.36
Korea	1.77	1.97	1.90	2.01
United States	2.04	2.00	1.87	1.79
Denmark	na	1.65	1.75	na
Germany	1.75	1.75	1.75	1.73
Belgium	1.48	1.60	1.63	1.71
Iceland	1.55	1.80	1.77	1.67
France	1.36	1.41	1.43	1.36
United Kingdom	1.21	1.24	1.26	1.24
Canada	1.15	1.27	1.09	1.03
Norway	na	0.96	0.96	1.00
Netherlands	1.11	1.10	1.02	0.99
Australia	0.74	0.87	0.87	0.89
Ireland	0.82	0.78	0.77	0.80
Czech Republic	0.74	0.74	0.75	0.77
Spain	0.50	0.50	0.56	0.60
Italy	0.53	0.55	0.56	0.55
New Zealand	na	0.42	na	0.47
Slovak Republic	0.43	0.43	0.37	0.32
Hungary	0.35	0.38	0.36	0.35
Portugal	0.22	0.27	0.30	na
Turkey	0.21	0.24	0.19	na
Poland	0.24	0.23	0.12	0.15

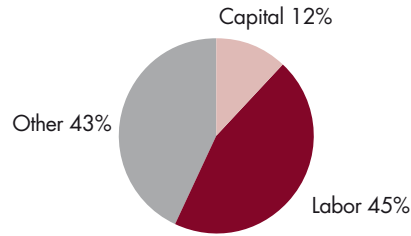
BERD = business expenditure on R&D. na Not available.

4 Industry shares of R&D expenditure by food, beverage and tobacco management units

	Total R&D	Value added
	%	%
Meat and meat products	17	21
Dairy products	12	10
Fruit and vegetables	9	6
Oils and fats	np	3
Flour milling and cereals foods	11	6
Bakery products	4	9
Other foods	34	23
Beverages and malt	10	22
Tobacco products	np	np
Total food, beverage and tobacco	100	100

np Not published.

A Components of R&D expenditure, 2003-04 Food, beverage and tobacco



meat and meat products (up 22 per cent). In contrast, R&D expenditure within the dairy sector declined by more than 24 per cent over the same time period.

The dairy, fruit and vegetable processing, flour milling and cereals food, and other foods sectors had a relatively higher share of R&D when compared with their share of industry value added (table 4). Meat and meat products, bakery, other foods and beverages and malt sectors had a comparatively lower ratio of R&D to value add.

Investment in R&D tends to be dominated by labour expenditure and other expenditure, which includes outsourcing (table 5). Capital expenditure is a relatively minor component, comprising only 12 per cent (figure A). However, capital expenditure as a share of R&D for the food industry is greater than that of the manufacturing sector.

R&D and food and beverage companies

R&D expenditure in the Australian food and beverage industry is dominated by large companies, with 75 per cent of expenditure being conducted by the largest 2 per cent of businesses. In Australia, 95 per cent of R&D activities are funded by food and beverage manufacturers themselves, with an additional 1.7 per cent funded by government. This contrasts with an average of 88 per cent self funding for R&D across the Australian economy, 4 per cent from government, 4 per cent from overseas sources and 3 per cent from other businesses.

5 Food, beverage and tobacco components of R&D expenditure, 2003-04

Sector	Capital \$'000	Labour \$'000	Other \$'000	Total \$'000
Meat and meat product	4 765	12 949	25 663	43 376
Dairy product	2 183	14 137	15 827	32 147
Fruit and vegetable processing	1 104	12 468	10 912	24 484
Oil and fat	np	np	766	np
Flour mill and cereal food	3 449	12 758	12 643	28 850
Bakery product	np	6 166	np	9 775
Other food	10 718	42 669	35 571	88 958
Beverage and malt	5 872	13 537	6 910	26 319
Tobacco product	np	np	np	np
Total food, beverage and tobacco	30 795	116 674	112 645	260 114
Total manufacturing	250 817	1 421 307	1 622 005	3 294 129
Food, beverage and tobacco as a percentage of total manufacturing	12	8	7	8

np Not published.

According to a 2003 National Food Industry Strategy Limited survey, *Key Data Survey of Food and Beverage Manufacturers*, 46 per cent of food manufacturers indicated that a lack of capital prevents them from investing in R&D, 25 per cent of manufacturers indicated that they were too small to warrant the implementation of

R&D programs and 14 per cent said that operating in a niche market prevents them from investing in R&D. However, these difficulties tend to be more of an issue for smaller companies that often have a shorter period for expected returns on their R&D expenditure.



TECHNICAL INNOVATION

in Australia's food industry

Russel Rankin, Business Development Manager – Innovation, National Food Industry Strategy Ltd and Paul Ford, General Manager – Innovation, National Food Industry Strategy Ltd

Australia has a number of competitive advantages in the production and processing of food. It has a wide range of climatic conditions; modern, efficient agricultural and manufacturing processes and practices; and a 'clean and green' image. However, Australian companies are competing with overseas businesses that enjoy similar competitive advantages but can often access cheaper labour.

As with the agriculture and food sectors of most developed countries, to remain internationally competitive, the Australian food industry needs to work 'smarter', rather than just 'harder'.

Part of working 'smarter' is being innovative — developing, testing and adopting new products and processes. In order for the food industry to be internationally competitive, a culture of innovation and continuous improvement needs to be fostered at each stage of the food chain — from production and processing through to distribution and retailing.

Research and development (R&D) is a key driver of innovation; however, many companies underinvest in R&D activities. This is because comparatively long R&D lead times, risks associated with delivering a relevant outcome and the unknown size of the benefits resulting from R&D initiatives often make it difficult for companies to commit scarce capital to R&D investment. In terms of business expenditure, overseas food companies spend approximately 1.8 per cent of their turnover on R&D activities (Dunn 2005), while for Australian companies the figure is about 0.3 per cent.

The Australian Government has supported innovation initiatives in the agriculture, fisheries and food sectors for some time. In 2004-05, the Australian Government invested over \$450 million in agrifood R&D. This investment included \$230 million for R&D undertaken by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), over \$200 million through the rural R&D corporations, and another \$30 million through initiatives such as the National Food Industry Strategy and government programs such as the New Industries Development Program. Much of this expenditure leverages additional investment in R&D from industrywide levies or investment by companies.

Commercialisation

Knowledge transfer is a key component of taking ideas to market through the commercialisation of research. A recent report by Howard Partners (2005) for the Australian Government Department of Education, Science and Training found that there are four distinct processes involved in knowledge transfer. These have been defined as:

- encouraging broad industry adoption of the results of research;
- the sale or licensing of 'knowledge products' embedded in intellectual property (IP);
- the provision of services to businesses based on a defined IP platform, emphasising collaboration, partnership and joint ventures; and

- engagement—transfer as a byproduct of a convergence of interests between science and society, particularly higher education, industry and government.

Importantly, innovation commercialisation is often largely dependent on how well research organisations engage with industry and individual companies.

Closed innovation

Traditionally, companies involved in undertaking R&D adopted a ‘closed innovation’ strategy. This model for innovation creation is characterised by its controlled flow through the development funnel; from idea generation to feasibility, capability, implementation and subsequent launch of the product into the market place — figure A (Gunguly 1999).

The initial stages of the closed innovation strategy focus on identifying a trend — and associated opportunity — and evaluating the idea or opportunity in terms of its market relevance. Three key questions need to be answered — is the market attractive, is it feasible to take the idea to market and will the market concept be profitable?

The ‘capability’ stage is directed at refining the feasibility study, making final concept selections and planning the implementation process. The ‘implementation’ phase focuses on elaborating the marketing strategy and implementing the

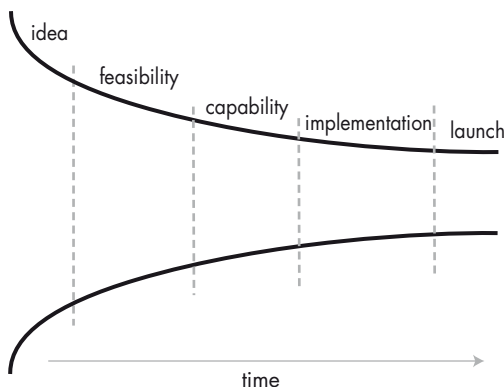
organisational requirements to commercialise the innovation. After development, the innovation is tested to confirm that it performs according to expectations. At the end of this stage, a decision is made on whether the innovation is ready to be introduced into the market place. If it is, the concept/technology is launched and stock produced (or services developed) and marketed to potential customers.

Decisions need to be made at the end of each stage on whether to proceed with taking the innovation to market. If projects are not meeting stage expectations, development may need to be refined or even ceased.

The closed innovation strategy operates on the principle that the company undertakes all research and development within the business. The strategy ensures complete control of the process, which is confidential and not constrained by outside influences. This model was refined and implemented by Unilever, and is appropriate for large enterprises — such as information and communication technology (ICT) and defence companies — with significant R&D infrastructure and resources.

The food industry, however, is characterised by comparatively smaller profit margins, leaving less funds available for investment in innovation. Australian food companies in particular typically have limited or no R&D capabilities, with fragmented and often duplicated research services supporting them. In order to gain a competitive advantage, the Australian food industry needs to access external IP and research services, and implement the innovation necessary to gain a competitive advantage. This is called ‘open innovation’.

A Innovation funnel



Open innovation

The ‘Open Innovation’ model was first described by Professor Henry Chesbrough of the University of California, Berkeley, through his observations of various US industries (Chesbrough 2003). The model is based on the gathering of new ideas that complement R&D objectives but which may be beyond the company’s internal capabilities.

Open innovation removes many of the boundaries, including geographical, technological and corporate impediments, that stand in the way of developing new products for release to the market. Open innovation effectively provides companies with access to knowledge and technologies that would otherwise take considerable time and resources to develop in-house. This approach makes it possible to shorten development cycles by leveraging IP that has originated from a wide range of sources — compare figures B and C.

The open innovation model also encourages a company to sell — or license to others — latent IP or IP from areas that are not part of its core

business. This unlocks additional value for the company and assists to develop innovation networks across industry. Australia's system of rural R&D corporations, based along agricultural commodity lines and funded by industry levies, draws heavily on the open innovation model.

Unlocking Australia's food research

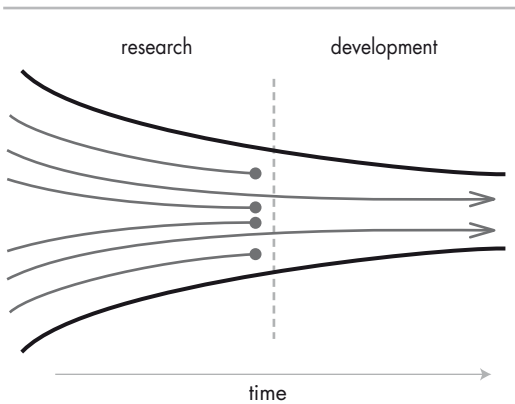
There have been considerable advances in food research over recent years, especially in the areas of food production, processing and cold storage (Food Science Australia 2001). However, while many R&D activities undertaken by private and public research organisations have formed the basis of successful commercialisation strategies, there remains a considerable body of innovation with commercial potential that has not been brought to market. A recent survey of patenting and commercialisation activities of Australian Universities found that 70 per cent of patents have been commercialised (Department of Industry, Tourism and Resources 2005).

The study also identified a range of factors that affect commercialisation, including:

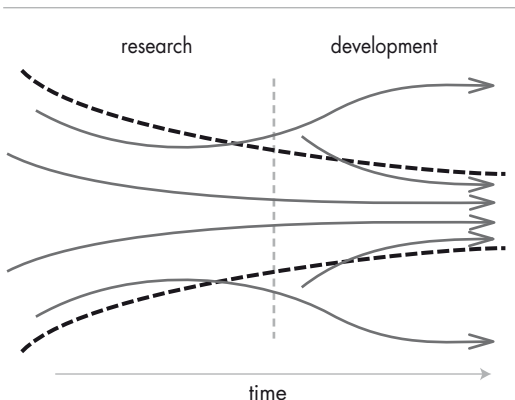
- a contact with prospective commercial partners prior to the granting of a patent, which assisted early commercialisation of research;
- an agreement on price and terms of the patent transfer;
- the lack of a 'one stop shop' for services related to commercialisation, contract research and consultancies made it difficult for prospective business partners to deal with the structure of universities; and
- the fact that it (commercialisation) is given a relatively low priority by university administrators.

One solution for bringing innovation to market lies in better linkages between researchers and Australian food companies. The National Food Industry Strategy is addressing this issue by providing seeding funds for the creation of two centres of excellence: the National Centre of Excellence in Functional Foods (www.nceff.com.au) and the Australian Food Safety Centre of Excellence (www.foodsafetycentre.com.au). These centres now provide a focal point for food companies wishing to resolve a food safety issue

B Closed innovation model



C Open innovation model



or extend their involvement in the area of functional food.

The role for those working at the interface between research organisations and commercial entities is one of a ‘broker’; translating a research outcome into a business opportunity and reverse engineering a business problem to identify an underlying research requirement, and then facilitating engagement between relevant parties. One of the key skills sets for bridging this interface is the ability to combine scientific or technical knowledge with a commercial focus. In this way, scientific or technical innovations can be defined in terms of potential market solutions, while business problems can be aligned with targeted research projects. An extensive knowledge of industry structures and networks is also fundamental to successfully partnering with business to commercialise the innovative ideas of Australian research organisations.

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EVOLUTION CONTINUES

in Australia's food industry

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This year (2005) was one of increased competition for the Australian food industry. On the domestic front, consumer spending slowed against a backdrop of heightened supermarket competitiveness, and competition intensified in the food service sector.

Manufacturers, meanwhile, have been facing significant pressure from imports, as well as an increasing push by supermarket chains for 'everyday low pricing' and the introduction of more private label (home brand) products onto supermarket shelves.

Retail sector

In financial year 2004-05 there was slowing growth in household disposable income and consumer spending, with a consequent slowdown in the growth of retail food and beverage sales from 8.0 per cent to 3.5 per cent.

Competition within the retail sector continues to intensify, creating downward pressure on prices. Major supermarket chains such as Woolworths, Coles Myer and Metcash have been expanding their range of private labels and reducing supply chain costs. In an effort to drive sales growth, supermarket chains have been investing much of the savings from cost cutting and supply chain programs into lower retail prices, thereby reducing operating costs and improving margins (Foodweek 2005a).

These strategies have resulted in higher sales and improved margins — measured as the ratio of earnings before interest and taxation (EBIT) to sales — for Coles and Woolworths (table 1). While Metcash recorded improved margins, the loss of its distribution contract with Franklins and a temporary loss of the Australian Leisure and Hospitality distribution contract resulted in a decline in sales growth.

1 Sales and margins for leading Australian supermarket chains, 2004-05

	Sales 2003-04	EBIT to sales ratio 2003-04	Sales 2004-05	EBIT to sales ratio 2004-05
	\$m		\$m	
Supermarket chains				
Woolworths Supermarket Division a	24 193	4.14	26 878	3.97
Coles Myer Food and Liquor	19 255	3.81	18 015	3.61
Coles Express	3 177	0.63	5 559	0.66
Metcash	7 174	2.3	6 994 b	2.4

a Includes liquor and petrol sales; excludes hotel sales. **b** Metcash sales revenue for 2004-05 is for a 53 week period, while Coles and Woolworths is for a 52 week reporting period. EBIT = earnings before interest and taxation.
Source: Woolworths, Coles Myer and Metcash 2005 annual reports.

2 Growth in store numbers by leading Australian supermarkets for 2004-05 and recent key acquisitions

Company	Acquisitions	Net change in store numbers
Coles Myer	7 hotels Right to operate 585 fuel and convenience outlets and eight stand-alone convenience stores	+30 supermarket stores +47 retail liquor outlets
Woolworths	Australian Leisure and Hospitality Taverner Hotel Group Foodland 97 petrol stations	+15 supermarket stores +382 retail liquor outlets
Metcash	Foodland Supply contracts for 7-Eleven stores CD confectionary distributors	+58 supermarket stores

Source: Woolworths, Coles Myer and Metcash 2005 annual reports.

The major supermarkets have also been heavily involved in acquisition and expansion activity, particularly in the liquor sector. The three main retailers increased the combined number of their supermarket stores by over 100 outlets in 2004-05 (table 2). Coles Myer acquired seven Queensland hotels and freehold properties for \$116.5 million, and purchased, from Shell multi-site franchises, the right to operate 585 fuel and convenience outlets and eight stand-alone convenience stores (Coles Myer 2005).

Woolworths has recently made a number of sizable acquisitions, including the Taverner Hotel Group (\$380 million) and the Australian Leisure and Hospitality Group (\$1.3 billion). It is also consolidating the Victorian hotel, club and liquor retailing operations of the Bruce Mathieson Group into Bruandwo, of which Woolworths owns 75 per cent (the other 25 per cent is owned by the Bruce Mathieson Group). An additional 97 petrol stations were added to Woolworths' Supermarket division in 2004-05.

In conjunction with Metcash, Woolworths acquired Foodland Australia Limited in November 2005. Metcash consequently became the owner of Foodland's Australian businesses, and Woolworths now owns the New Zealand businesses and a small number of Foodland's Australian retail supermarkets. Metcash has gained the supply agreement for 350 7-Eleven stores across Australia, which is expected to add a further

\$200 million a year to the sales of its wholesale division, Campbell's Cash and Carry. Metcash also acquired CD, a confectionery wholesale distribution business in Western Australia.

In addition to the expansion of the three main retailers, ALDI has been increasing the number of its outlets and plans to open 30 new stores a year in the medium term. It currently has a network of 94 stores and Australian assets of nearly \$1.9 billion (Foodweek 2005b).

The café and restaurant sector experienced a 1.5 per cent fall in sales over the 2004-05 financial year. However, many leading food franchises had considerable increases in revenue. This growth was attributable to the combination of increased store numbers and management and marketing efficiencies. Table 3 highlights some examples of revenue increases experienced by the top performing food franchises.

More Australian food and beverage franchises are expressing an interest in expanding into international markets to support their aggressive growth strategies. Companies such as Sumo Salad, Red Rooster, Dominos, Michel's Patisserie and Kick Juice Bars all intend expanding their businesses overseas.

The overseas growth of Australian franchises has several implications for Australian food manufacturers and farmers. While there are potential benefits in the form of increased demand for Australian products, the ability of

3 Growth in leading Australian franchises

Franchise	Increase in revenue	2004-05 revenue
	%	\$m
Boost Juice Bars	64.9	\$122
Gloria Jean's Coffees	60.5	\$130
Oporto	25.8	\$142
Retail Brands Group (owns Wendys and Quiznos Subs)	21.1	\$109
Lenards	19.5	\$88
Competitor Foods Australia (operator of KFC and Hungry Jacks in Australia)	11.7	\$589

Source: Business Review Weekly (2005a).

larger franchises to cost effectively source products from the international market may pose a threat to domestic supply contracts. The ability of Australian companies to retain supply contracts will be determined by a combination of price competitiveness, product quality, length and complexity of the supply chain and the ability to minimise franchise inventory levels.

Food manufacturing

In 2004-05 there was further rationalisation and increased capital investment in the food manufacturing sector. Many parts of the industry are seeking to lift their competitiveness against increasing competition. Technological capabilities are improving in low-cost competitor countries, and local food retailers, in response to commercial pressures, are benchmarking supplier competitiveness on an increasingly wider geographical basis and changing their sourcing arrangements accordingly. One key example is the shift by McDonalds Australia to move some contracts for french fries from Simplot in Australia to McCains in New Zealand.

Table 4 highlights the extent of some of the price gaps between Australian and international food products. The commercial success of the Australian food industry lies in its capacity to innovate its practices, processes and products and exploit niche markets through the supply

4 Australian price gap for selected horticulture commodities

Commodity	Source country	Australian price gap
		%
Potatoes	New Zealand	30
	North America	60
Peas	New Zealand	42
Corn	New Zealand	30
	Thailand	55
	North America	116

Source: O'Brien (2005).

of specialised, high quality, differentiated products.

It is likely that the move toward private labels will reinforce this trend. In the AC Nielsen Retail Barometer, more than half of Australian manufacturers surveyed indicated that they are already supplying private label products (*What's New in Food Technology and Manufacturing* 2005). In the same survey, 53 per cent of senior executives who responded said that trading conditions are likely to worsen in the next two years (Business Review Weekly 2005b).

Tougher trading conditions and the push to be more cost competitive are leading to significant increases in corporate activity in the food industry. Table 5 provides some examples of recent mergers, acquisitions and investments in the Australian food industry.

This increasing rationalisation within the food industry is likely to create three types of manufacturers (*What's New in Food Technology and Manufacturing* 2005):

- those who embrace private labelling as an opportunity and transform their manufacturing and business operations accordingly;
- those who concentrate on building well known consumer brands through increased advertising expenditure; and
- those mainly smaller manufacturers who are increasingly looking to penetrate alternative channels outside of the major food supermarkets, such as the food service sector.

5 Recent mergers and acquisitions in the Australian food industry

Company	Detail	Sector
Bonlac Foods Limited	Full acquisition by Fonterra	Dairy
Sunrice	Announce a proposal to restructure the business from a cooperative to a company	Grains
SPC Ardmona	Acquired by Coca Cola Amatil	Processed fruit and vegetables
Berri Limited	Acquired by San Miguel	Processed fruit and vegetables
National Foods	Acquired by San Miguel	Dairy
Aquatas	Acquired by Tassal	Seafood
Sakata	Acquired by Smiths Snackfoods	Snackfood
Keith Harris Flavours and Fragrances and Woods & Woods	Acquired by Orica	Specialised ingredients
Castle Bacon	Merged with Darling Downs foods	Meat and meat products
Chickadee foods	Acquired by Inghams	Meat and meat products
Sunbeam foods merged with Angus Park Fruit Company	Acquired by Mildura Co-operative Fruit	Processed fruit and vegetables
House of Winston GSK Corporation (established manufacturing facility in Melbourne)	Acquired by Mrs Crocket's	Processed fruit and vegetables
Southcorp	Acquired by Fosters	Beverages and malt
East Africa Coffee	Acquired by Chiquita South Pacific	Process fruit and vegetables
Brunswick Seafood	Acquired by So Natural	Seafood

Conclusion

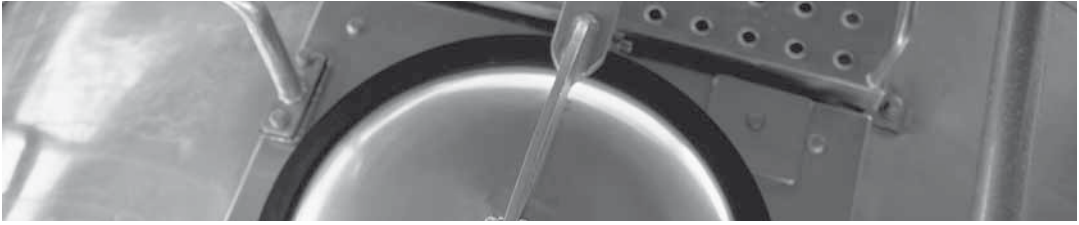
While the growth rate in retail sales in food and beverages fell from 8.0 per cent to 3.5 per cent in 2004-05, the level of competition within the food industry has intensified. This has been reflected in the growth of private labels, further supply chain cost reductions and significant acquisitions by major supermarkets. Notable growth has also been experienced by a range of leading food franchises, despite a 1.5 per cent decline in turnover in the café and restaurant sector.

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Statistics



ABOUT THE DATA

Australian commodity production and value

Since 1997-98, estimates of farm crop and live-stock production have been based on the Australian Bureau of Statistics' Agricultural Commodity Survey (ACS) that is conducted at 30 June each year. Approximately every fifth year an Agricultural Census will be conducted in place of the ACS. The last Agricultural Census was conducted at 30 June 2001. Prior to 1997-98 this information was collected annually in the Agricultural Census.

Information covering commodities such as livestock slaughtering and dairy produce is obtained from separate collections and from organisations such as the Australian Dairy Corporation.

Gross values are derived by multiplying the production quantity data by price (or unit value) data. All crop price information is obtained from non-ABS sources such as marketing boards, marketing reports, wholesalers, brokers and auctioneers. Price information for livestock slaughtering is obtained from ABS collections.

Scope of ABS surveys

Estimates from the Agricultural Commodity Surveys are based on production from farms having an estimated value of agricultural operations (EVAO) of \$5000 or more.

- The EVAO of a farm is calculated by applying three year average weighted prices to livestock turnoff and livestock numbers on the farm and to area and production data for

crops. The aggregation of these commodity values is the EVAO.

This is the same scope as that used for the Agricultural Censuses from 1993-94 to 1996-97 and for the Agricultural Commodity Survey from 1997-98 to 1999-2000. Prior to 1993-94 the scope varied. Details are available from the ABS.

Australian trade

Data on international merchandise trade movements to and from Australia are collected by the Australian Customs Service, as part of its responsibility to administer government policy on tariffs and barrier control.

Harmonised trade statistics

The merchandise trade statistics are compiled by the ABS according to classifications that conform to an international standard, the International Harmonised Commodity Description and Coding System, with extra detail to meet Australian statistical needs.

- All exports are classified according to the Australian Harmonised Export Classification (AHECC).
- All imports are classified according to the Harmonised Tariff Item Statistical Code (HTISC), with extra detail to meet Australian Customs Service and statistical needs.

Confidentiality

Restrictions are placed on the release of trade statistics where the data relating to an individual or

organisation is likely to enable the identification of the trade of that individual or organisation, and that entity has requested that the data be suppressed.

- The main confidentiality restrictions that apply to food trade statistics are that no country details are provided for exports of unprocessed sugar, bulk wheat and malting barley.

Trade values

The method of valuation for trade is:

- the value of exports is the free on board (fob) transactions value of the goods expressed in Australian dollars; and
- the value of imports is the Australian Customs value — goods are valued at the point of containerisation (in most cases) or the port of shipment, or at the customs frontier of the exporting country, whichever comes first.

World trade in food

The data on world trade in food — both imports and exports — were obtained from the COMTRADE database that is established and maintained by the United Nations' Statistics Division.

- More than 100 countries supply their updated trade statistics to this database, representing over 90 per cent of world trade.
- The data are recorded according to the Harmonised Commodity Description and Coding System and Standard International Trade Classification Revision 3.

World food balances

The data on country food balances were obtained from the FAOSTAT database of the Food and Agriculture Organisation of the United Nations (FAO).

- Details of how standardised food balance sheets are derived are provided in FAO (2000 – www.fao.org).

The elements of an FAO food balance sheet are:

- production, imports and changes in stocks that together define the supply available to a country; and
- exports, livestock feed, seed use, industrial use, human consumption and losses during storage and transport that together add up to total utilisation.

FAO food balance sheets are standardised in order to reduce the amount of data for analytical purposes. Standardisation takes the form of:

- conversion of processed commodities back to their primary equivalents (so-called 'vertical standardisation'); and
- aggregation of similar products — for example, chicken meat and turkey meat aggregated as poultry meat (so-called 'horizontal standardisation').

To keep the amount of data contained in *Australian Food Statistics* to manageable proportions, FAO food balance data reported are further simplified in two ways:

- only data at the major food type level of aggregation (thirteen different categories in all) are reported (FAOSTAT has 87 different food types); and
- some elements of the food balance sheets are omitted — such as feed use, industrial use and losses in transport.



INFORMATION

selected Australian and world sources

General

Agency	Publication or source	Description
Australian		
Australian Bureau of Agricultural and Resource Economics (ABARE) www.abareconomics.com	<i>Australian Commodity Statistics</i> , December (annual)	Compendium of statistics providing a comprehensive coverage of current and historical data on price, production and export information, covering most agricultural commodities. Also included is comprehensive information on farm sector output and employment, balance of trade figures and macroeconomic indicators. Up to forty years of historical data are provided.
	<i>Australian Commodities</i> (quarterly)	A journal containing: <ul style="list-style-type: none"> • an overview of the performance of and prospects for the Australian primary commodities sector; • forecasts for the major agricultural, minerals and energy industries; • comprehensive statistical tables covering production, export, cost and price information; • macroeconomic indicators; and • articles on topical economic issues.
	<i>Australian Fisheries Statistics</i> , April (annual)	Compendium providing information on production and trade for the Australian fishing industry for a three year period. Also includes a profile of Commonwealth and state fisheries.
	<i>Australian Horticulture in the Global Environment</i> , February 2000	Research report profiling over twenty horticultural products exported by Australia, providing information on Australian production and exports, major markets and competitors, and the trade policies of key markets.
Australian Bureau of Statistics (ABS) www.abs.gov.au	AusStats (www.abs.gov.au/ausstats)	An internet based information service providing ABS's full product range (both free and charged material) online. Includes: <ul style="list-style-type: none"> • all ABS publications from 1998 onwards; • over 2000 spreadsheet tables with time series data.

continued

General *continued*

Agency	Publication or source	Description
Australian cont'd		
Department of Agriculture, Fisheries and Forestry (DAFF) www.daff.gov.au/foodinfo)	Food Info Australia	Website providing online access to processed food and beverage industry statistics and Australian Government policy information.
Horticulture Australia www.horticulture.com.au	<i>Australian Horticultural Statistics Handbook</i> (annual)	Handbook highlighting production in Australia and competitor countries and exports from Australia to major markets for a range of horticultural commodities. Also includes statistics on per person consumption and main horticultural imports to Australia.
Australian Pork Limited www.apl.au.com	<i>PigStats</i>	Compilation of pig industry statistics focusing on pig industry structure, farm performance and a range of information on trade and consumption.
World		
International Grains Council www.igc.org.uk	<i>World Grain Statistics</i> (annual)	Report containing 45 detailed tables on production, trade, consumption, stocks and prices for wheat (including durum and wheat flour) and coarse grains. Additional tables deal with ocean freight rates. Most tables cover a ten year period.
Food and Agriculture Organisation of the United Nations www.fao.org	FAOSTAT By subscription on CD-ROM or online (apps.fao.org). There is limited free use allowed of the online version.	An online and multilingual database currently containing over 1 million time series records for 210 countries and territories, covering international statistics for production, trade, food balance sheets, food aid shipments, fertiliser and pesticides, land use and irrigation, forest products, fishery products, and population.
Central Intelligence Agency of the United States of America www.cia.gov	<i>World Fact Book</i> (annual). Available in printed, CD-ROM, or online (free) (www.cia.gov/cia/publications/factbook/index.html)	Compendium containing, for virtually every country in the world, information on their geography, people, government, economy, communications, transport, military and transnational issues.

Australian food processing industry

Agency	Publication or source	Description
Australian Bureau of Statistics www.abs.gov.au	<i>Manufacturing Industry</i> , cat. nos 8221.0, 8221.1, 8221.2, 8221.3, 8221.4, 8221.5, 8221.6 (quarterly)	Information on the Australian processed food industry, including data on employment, wages and salaries, turnover and industry gross production. The data are classified by state and selected major commodities together with aggregate data for the past two years.
	Available on AusStats (www.abs.gov.au/ausstats)	An internet based information service providing ABS full product range (both free and charged material) online.

Australian retail food industry

Agency	Publication or source	Description
Australian Bureau of Statistics www.abs.gov.au	<i>Retail Trade</i> , cat. no. 8501.0 (quarterly)	Information on the Australian retail food industry including data on retail turnover by subgroup, such as supermarkets and grocery stores, takeaway outlets, other food retailing, other retailing, hospitality services, such as cafes and restaurants, hotels and licensed clubs.
	Available on AusStats (www.abs.gov.au/ausstats)	An internet based information service providing ABS full product range (both free and charged material) online.
Retail World Pty Ltd www.retailworld.com.au	<i>Grocery Industry Marketing Guide</i> (annual)	Information on market shares, by product group suppliers and retail developments.

Australian retail food prices

Agency	Publication or source	Description
Australian Bureau of Statistics (www.abs.gov.au)	<i>Consumer Price Index</i> , cat. no. 6401.0 (quarterly)	Information on the Australian retail food prices and consumer price indexes, by industry, including data on retail prices by subgroup, such as dairy products, grain products, meat and seafood, fruit and vegetables, processed fruit for the past five years. Information on consumer price indexes, including data by subgroups, such as food, clothing, housing, transport, health and personal care etc, and by food group, such as dairy and related products, cereal products, meat and seafoods, fruit and other food.
	<i>Average Retail Prices of Selected Items</i> , cat. no. 6403.0	
	Available on AusStats (www.abs.gov.au/ausstats)	An internet based information service that provides ABS full product range (both free and charged material) online.

Australian trade

Agency	Publication or source	Description
Australian Bureau of Statistics www.abs.gov.au	<i>International Merchandise Trade</i> , cat. no. 5422.0 (quarterly)	Information on the value of Australia's merchandise exports and imports with major trading partners, including data classified by state, broad economic category, industry of origin and selected major commodities, together with aggregate data on trade with major trading partners for the past fourteen years.
	Available on AusStats (www.abs.gov.au/ausstats)	An internet based information service providing ABS's full product range (both free and charged material) online.
Australian Department of Foreign Affairs and Trade (DFAT) www.dfat.gov.au	<i>Composition of Trade Australia</i> (published twice yearly in calendar year and financial year format)	A compendium of statistics on merchandise exports and imports, analysing the growth, direction and commodity breakdown of Australia's trade over the past five years. It also includes individual reports showing the composition of trade with over eighty of Australia's trading partners.
	Extract available free online (www.dfat.gov.au/publications/statistics.html)	
	<i>Direction of Trade, Time Series</i> (annual)	Contains value and percentage shares of Australia's exports to, and imports from, every one of our trading partners on a consistent basis over a twenty year period. It also includes total trade and trade balances with each of these countries.

World food trade

Agency	Publication or source	Description
<p>International Trade Centre, an organisation operated jointly by the World Trade Organisation (WTO) and United Nations Conference on Trade and Development (UNCTAD) www.intracen.org</p>	<p>Trade statistics (www.intracen.org/tradstat/welcome.htm)</p> <p>Also available on CD-ROM with time series data for the five years 1996–2000. (Data are obtained from the Commodity Trade Statistics Data Base (COMTRADE) of the United Nations Statistics Division)</p> <p>Infobases (www.intracen.org/tradstat/welcome.htm)</p>	<p>International trade statistic (imports and exports) by:</p> <ul style="list-style-type: none"> • section and product group, 1996–2003 • country and product group, 1996–2003. <p>Has coverage of over 100 reporting countries and territories representing about 90 per cent of world trade.</p> <p>The data are recorded according to the Harmonised Commodity Description and Coding System (HS 96 and HS 88) and Standard International Trade classification (Rev. 3, Rev. 2 and Rev. 1).</p> <p>Also includes information on product classification and trade performances, by country.</p> <p>As well as trade statistics, contains market briefs, information on trade contacts and information sources.</p>
<p>United Nations Statistics Division www.un.org/Depts/unsd</p>	<p><i>International Trade Statistics Yearbook</i> (annual)</p>	<p>Volume I provides historical information on the external trade performance of individual countries in terms of current values and, if available, exchange rate, as well as quantum and unit value indexes. Information showing important commodities traded by an individual country (latest four years) and the country's trade with its major trading partners and regions (latest five years) are also shown. Summary tables for each country show imports by broad economic categories, exports by industrial origin and the percentage share of the country's top ten trading partners and selected regions in relation to its total trade. This volume contains data for 168 countries or reporting customs areas.</p> <p>Volume II contains selected commodity tables showing total world trade of those commodities analysed by regions and countries, as well as various specialised tables.</p>

World food consumption

Agency	Publication or source	Description
International Trade Centre, an organisation operated jointly by the World Trade Organisation (WTO) and United Nations Conference on Trade and Development (UNCTAD) www.intracen.org	Trade statistics (www.intracen.org/tradstat/mainproduct.htm) Also available on CD-ROM with time series data for the five years 1996–2000. (Data are obtained from the Commodity Trade Statistics Data Base (COMTRADE) of the United Nations Statistics Division.) Infobases (www.intracen.org/tradstat/welcome.htm)	International trade statistic (imports and exports) by: <ul style="list-style-type: none"> • section and product group, 1996–2000 • country and product group, 1996–2000. Has coverage of over 100 reporting countries and territories representing about 90 per cent of world trade. The data are recorded according to the Harmonised Commodity Description and Coding System (HS 96 and HS 88) and Standard International Trade classification (Rev. 3, Rev. 2 and Rev. 1). Also includes information on product classification and trade performances, by country. As well as trade statistics, contains market briefs, information on trade contacts and information sources.
United Nations Statistics Division www.un.org/Depts/unsd	<i>International Trade Statistics Yearbook</i> (annual)	Volume I provides historical information on the external trade performance of individual countries in terms of current values and, if available, exchange rate, as well as quantum and unit value indexes. Information showing important commodities traded by an individual country (latest four years) and the country's trade with its major trading partners and regions (latest five years) are also shown. Summary tables for each country show imports by broad economic categories, exports by industrial origin and the percentage share of the country's top ten trading partners and selected regions in relation to its total trade. This volume contains data for 168 countries or reporting customs areas. Volume II contains selected commodity tables showing total world trade of those commodities analysed by regions and countries, as well as various specialised tables.

1.1 Agricultural food production, by commodity

	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Crops							
Grains a							
Wheat	kt	24 758	22 108	24 299	10 132	26 132	20 376
Barley	kt	5 032	6 743	8 280	3 865	10 382	6 454
Oats	kt	1 118	1 050	1 434	957	2 018	1 057
Maize	kt	406	345	454	310	395	312
Rice	kt	1 101	1 643	1 192	438	553	345
Lupins	kt	1 968	1 055	1 215	726	1 180	891
Field peas	kt	496	456	512	178	487	321
Chickpeas	kt	230	162	258	136	178	116
Mung beans	kt	41	52	43	34	47	53
Navy beans	kt	6	6	7	5	5	5
Faba beans	kt	226	325	350	108	277	168
Lentils	kt	103	163	266	67	175	83
Oilseeds							
Canola	kt	2 460	1 775	1 756	871	1 703	1 533
Sunflowerseed	kt	170	77	70	25	58	62
Soybeans	kt	104	49	63	18	74	56
Cottonseed	kt	1 046	1 140	1 054	546	494	912
Other oilseeds	kt	87	57	40	63	81	79
Other							
Sugarcane	kt	38 165	28 117	31 424	36 995	36 993	37 485
Peanuts	kt	40	39	29	28	44	43
Horticulture							
Fruit							
Apples	kt	320	325	321	326	255	na
Pears	kt	159	169	145	136	139	na
Nashi	kt	3	3	3	3	3	na
Avocado	kt	24	30	28	41	42	na
Melons	kt	178	198	174	175	204	na
Pineapples	kt	139	120	119	105	110	na
Bananas	kt	257	358	313	265	257	na
Kiwifruit	kt	4	4	3	3	3	na
Mangoes	kt	38	37	41	39	37	na
Wine grapes	kt	1 129	1 422	1 606	1 411	1 895	1 914
Table and dried grapes	kt	209	169	227	137	198	168
Oranges	kt	517	651	414	633	410	na
Mandarins	kt	91	79	78	98	97	102
Lemons/limes/grapefruit	kt	43	47	45	50	41	47
Nuts and berries							
Almonds	kt	9	9	10	10	9	na
Chestnuts	t	1 250	1 400	1 200	700	600	na
Macadamia	kt	23	23	25	24	29	na
Berries b	kt	na	18	22	24	22	na

Continued

1.1 Agricultural food production, by commodity *continued*

	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Horticulture (continued)							
Stonefruit							
Peaches	kt	86	74	89	97	74	na
Nectarines	kt	36	34	29	30	25	na
Apricots	kt	20	21	12	20	11	na
Plums	kt	24	31	25	33	24	na
Cherries	kt	6	8	7	9	8	na
Vegetables							
Potatoes	kt	1 200	1 302	1 333	1 247	1 310	na
Onions	kt	247	222	283	229	233	na
Carrots	kt	283	321	331	306	303	na
Asparagus	kt	16	13	14	12	10	na
Broccoli	kt	39	46	46	55	52	na
Cauliflower	kt	76	76	88	73	78	na
Tomatoes	kt	414	556	425	364	474	na
Mushrooms	kt	46	39	43	39	46	na
Lettuce	kt	152	153	135	122	127	na
Capsicum/chillies	kt	44	42	43	41	56	na
Cabbage	kt	69	81	76	na	na	na
Beans	kt	34	33	34	35	31	na
Other	kt	303	349	337	na	na	na
Livestock slaughtering							
Cattle and calves	'000	8 642	8 930	8 587	9 228	8 779	8 853
Cattle exported live c	'000	846	846	797	968	578	550
Sheep	'000	15 585	16 628	14 441	13 657	10 421	11 443
Lambs	'000	17 557	18 629	17 400	16 870	16 562	17 331
Sheep exported live c	'000	4 859	5 936	6 443	5 843	3 843	3 233
Pigs	'000	5 025	5 016	5 402	5 742	5 591	5 339
Poultry for meat	million	394	399	416	419	424	438
Livestock products							
Milk	ML	10 847	10 545	11 271	10 326	10 075	10 125
Eggs	'000 dozen	182 179	203 163	187 027	190 706	193 045	na
Fisheries products							
Tuna	kt	16	16	16	15	14	12
Other fish	kt	113	122	137	151	164	132
Prawns	kt	27	30	29	26	27	26
Rock lobster	kt	20	17	14	17	20	18
Abalone	kt	6	6	6	5	6	6
Scallops	kt	12	9	6	8	9	10
Oysters	kt	10	10	10	11	13	13

a Includes products for non food use. b Includes strawberries, raspberries, blackberries, blueberries and blackcurrants. c Excludes animals for breeding. na Not available.

Sources: ABARE, *Australian Crop Report*, Canberra; ABARE, *Australian Fisheries Statistics*, Canberra; ABS, *Selected Agricultural Commodities, Preliminary*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; ABS, *Summary of Crops*, cat. no. 7330.0, Canberra; Horticulture Australia Limited, *Australian Horticultural Statistics Handbook, 2000-2001 and previous editions*, Sydney; Australian Citrus Growers Incorporated, *Annual Report 2000*, Adelaide; ABARE.

1.2 Value of agricultural food production, by commodity

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Crops						
Grains a						
Wheat	4 831	5 130	6 356	2 692	5 636	4 371
Barley	865	1 344	1 725	984	1 750	1 162
Oats	118	138	251	210	279	203
Maize	62	65	90	72	88	80
Rice	289	350	327	153	180	136
Lupins	286	217	304	212	278	171
Field peas	106	100	147	61	113	74
Chickpeas	78	75	130	65	58	36
Mung beans	25	27	25	19	20	25
Faba beans	58	94	123	52	110	68
Oilseeds						
Canola	760	545	675	339	686	537
Sunflowerseed	64	28	27	10	20	21
Soybeans	36	18	22	7	27	17
Cottonseed	172	207	200	118	89	148
Other oilseeds	42	33	23	39	44	49
Other						
Sugarcane	882	657	989	1 019	854	873
Total crops	8 675	9 029	11 415	6 051	10 232	7 971
Horticulture						
Fruit						
Apples	274	282	348	381	368	na
Pears	72	90	99	80	105	na
Nashi	6	6	6	9	10	na
Avocado	55	58	69	92	104	na
Melons	109	128	117	114	144	na
Pineapples	44	44	40	33	37	na
Bananas	284	409	415	322	286	na
Kiwifruit	10	10	10	6	8	na
Mangoes	80	92	98	82	86	na
Wine grapes	737	925	1 059	1 143	1 469	1 349
Table and dried grapes	215	211	203	192	166	156
Oranges	276	277	281	337	236	na
Mandarins	89	87	94	120	133	na
Lemons/limes/grapefruit	23	25	35	28	31	na
Other fruit	61	130	133	130	132	na
Nuts and berries						
Almonds	40	41	44	53	58	na
Chestnuts	5	5	5	5	5	na
Macadamia	49	52	68	75	102	na
Berries b	133	130	132	161	190	na

Continued

1.2 Value of agricultural food production, by commodity *continued*

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Horticulture (continued)						
Stonefruit						
Peaches	74	73	76	84	87	na
Nectarines	71	70	65	70	65	na
Apricots	32	30	18	25	24	na
Plums	43	59	53	64	55	na
Cherries	40	60	55	70	65	na
Vegetables						
Potatoes	382	458	485	485	481	na
Onions	114	120	163	126	153	na
Carrots	154	189	199	162	150	na
Asparagus	96	58	66	58	47	na
Broccoli	55	70	65	82	81	na
Cauliflower	56	53	56	59	57	na
Tomatoes	190	257	230	226	280	na
Mushrooms	149	164	184	193	219	na
Lettuce	104	123	113	106	115	na
Capsicum/chillies	60	69	64	72	116	na
Cabbage	24	39	27	30	35	na
Beans	44	47	53	61	62	na
Other	324	409	445	354	415	na
Total horticulture	4 575	5 347	5 675	5 688	6 174	na
Livestock slaughtering						
Cattle and calves	4 616	5 949	6 617	5 849	6 345	7 331
Cattle exported live c	433	482	526	562	314	335
Sheep	205	368	544	446	454	397
Lambs	669	776	1 181	1 182	1 318	1 258
Sheep exported live c	180	258	392	408	266	207
Pigs	792	822	968	911	879	924
Poultry meat	1 031	1 060	1 175	1 281	1 281	1 440
Livestock products						
Milk	2 972	3 053	3 717	2 795	2 809	3 139
Eggs	321	333	320	296	336	310
Total livestock	11 218	13 101	15 440	13 731	14 001	15 341
Fisheries products						
Tuna	257	329	323	317	187	180
Other fish	454	490	546	560	551	437
Prawns	415	453	429	360	355	333
Rock lobster	546	481	502	460	408	409
Abalone	221	276	247	216	196	252
Scallops	43	39	23	33	24	26
Oysters	53	55	57	62	72	76
Total fisheries d	2 154	2 288	2 255	2 155	1 945	1 852

a Includes products for non food use. b Includes strawberries, raspberries, blackberries, blueberries and blackcurrants. c Excludes animals for breeding. d Total includes pearls, other crustaceans and other molluscs. na Not available.

Sources: ABARE, *Australian Fisheries Statistics*, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; ABS, *Value of Principal Agricultural Commodities Produced*, cat. no. 7501.0, Canberra; ABS, *Value of Agricultural Commodities Produced*, cat. no. 7503.0, Canberra; Horticulture Australia Limited, *Australian Horticultural Statistics Handbook, 2000-2001 and previous editions*, Sydney; Australian Citrus Growers Incorporated, *Annual Report 2000*, Adelaide; ABARE.

1.3 Number of enterprises engaged in agricultural food production ^a

	1999-00	2000-01	2001-02	2002-03	2003-04
	no.	no.	no.	no.	no.
Main activity					
Grape growing	5 924	6 115	6 081	5 714	5 836
Apple and pear growing	1 145	969	860	836	897
Stone fruit growing	993	1 000	984	1 096	1 030
Other fruit	4 499	4 495	4 344	4 382	4 098
Vegetables	4 557	4 480	4 303	3 930	3 819
Grain growing	15 578	15 682	15 297	11 411	14 189
Grain–sheep/beef cattle farming	17 492	15 384	15 197	16 622	15 856
Sheep–beef cattle farming	8 014	7 993	7 421	9 009	7 803
Sheep farming	10 853	9 925	10 767	10 803	9 981
Beef cattle farming	19 582	21 169	19 245	24 195	23 769
Dairy cattle farming	13 566	12 605	10 999	10 709	10 178
Poultry farming (meat)	845	782	773	717	709
Poultry farming (eggs)	454	463	481	457	344
Pig farming	1 040	1 052	1 061	921	808
Deer farming	85	88	49	194	5
Sugar cane growing	4 909	4 743	4 747	4 762	4 538
Cotton growing	974	996	697	520	562
Total	110 510	107 941	103 306	106 278	104 422
Other agriculture					
Other livestock (including horses)	1 972	1 210	1 223	357	1 668
Other crops and plant growing nec	4 391	4 331	4 090	3 734	1 286
All other industries	1 182	1 599	1 058	624	966
Total	118 055	115 081	109 677	110 993	108 342

^a Farm businesses with an EVAO over \$22 500 as at 31 March.

Source: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities Australia*, cat. No. 7121.0, Canberra.

1.4 Employment in agricultural food production ^a

	NSW ^b	Vic.	Qld.	SA	WA	Tas.	NT	Australia
	no.	no.	no.	no.	no.	no.	no.	no.
2002-03								
Horticulture and fruit growing	19 350	16 025	27 225	17 750	8 550	3 575	375	93 100
Grain, sheep and beef cattle farming	50 350	31 950	40 625	16 625	19 900	5 525	1 025	166 125
Dairy cattle farming	5 700	12 875	3 250	1 425	775	1 700	na	25 750
Poultry farming	4 825	2 100	1 100	1 275	1 450	225	na	11 000
Other livestock farming	3 225	2 950	2 850	1 050	1 600	350	100	12 075
Other crop growing	3 225	300	9 425	na	400	150	na	13 100
Agriculture not fully defined	650	1 375	800	775	75	500	na	4 500
All agriculture	87 325	67 575	85 275	38 900	32 750	12 025	1 500	325 650
Commercial fishing	4 875	1 025	3 925	2 575	3 300	1 275	400	17 400
Marine fishing nec	1 525	400	2 775	1 125	2 200	625	100	8 675
Aquaculture	1 075	625	1 150	1 225	700	575	300	5 275
Fishing not fully defined	2 275	0	0	225	400	75	0	3 450
All fishing	9 750	2 050	7 850	5 150	6 600	2 550	800	34 800
2003-04								
Horticulture and fruit growing	17 750	24 675	24 375	16 225	8 300	2 650	600	94 825
Grain, sheep and beef cattle farming	49 225	32 025	36 325	16 025	24 950	5 550	500	164 925
Dairy cattle farming	4 650	9 225	1 225	2 375	1 225	1 025	na	19 750
Poultry farming	3 300	2 375	2 375	500	800	375	na	9 725
Other livestock farming	2 475	3 000	2 400	1 150	775	200	100	10 025
Other crop growing	1 600	925	8 025	200	300	230	200	10 775
Agriculture not fully defined	4 175	1 825	1 225	975	1 125	520	na	10 375
All agriculture	83 175	74 050	75 950	37 450	37 475	10 550	1 400	320 400
Commercial fishing	1 600	1 050	3 700	4 275	3 300	1 825	625	15 700
Marine fishing nec	850	325	1 975	1 825	2 675	725	225	8 000
Aquaculture	500	600	950	2 175	525	1 100	350	5 075
Fishing not fully defined	250	125	775	275	100	0	50	2 625
All fishing	3 200	2 100	7 400	8 550	6 600	3 650	1 250	31 400
2004-05								
Horticulture and fruit growing	12 650	19 575	22 400	13 850	9 375	3 100	575	81 650
Grain, sheep and beef cattle farming	34 475	27 450	29 750	15 100	21 900	3 575	800	133 300
Dairy cattle farming	2 675	11 450	1 800	2 000	1 700	1 925	na	21 550
Poultry farming	3 475	3 025	950	1 050	1 100	225	na	9 375
Other livestock farming	3 350	2 850	2 250	1 050	525	200	na	10 250
Other crop growing	2 150	1 950	11 025	400	330	270	na	15 950
Agriculture not fully defined	21 275	7 625	2 650	1 825	4 245	1 630	100	40 175
All agriculture	80 050	73 925	70 825	35 275	39 175	10 925	1 475	312 250
Commercial fishing	1 450	800	2 550	3 475	3 725	1 300	575	13 950
Marine fishing nec	450	500	775	1 100	2 725	225	300	5 475
Aquaculture	925	300	1 475	1 975	575	925	225	6 175
Fishing not fully defined	75	0	300	400	425	150	50	2 325
All fishing	2 900	1 600	5 100	6 950	7 450	2 600	1 150	27 925

^a Includes proprietors and partners and employees working for farm businesses with an EVAO over \$22 500. Excludes non salaried directors, consultants, contractors and unpaid labor. ^b Includes ACT. **na** Not available.

Source: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Labour Force, Australia, Detailed - Electronic Delivery*, cat. no. 6291.0.55.001, Canberra; unpublished data ABS.

2.1 Supply and use of Australian wheat, canola and pulses ^a

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05 ^p
	kt	kt	kt	kt	kt	kt
Wheat						
Production	24 758	22 108	24 299	10 132	26 132	20 376
Domestic use ^b	4 666	4 791	4 894	5 666	5 076	5 213
Human and industrial ^b	2 189	2 272	2 291	2 378	2 351	2 361
Feed ^c	1 930	2 000	2 100	2 700	2 185	2 338
Seed	546	519	503	588	540	514
Net exports	17 838	16 142	16 317	9 107	17 867	14 694
Change in stocks	2 255	1 175	3 088	−4 641	3 190	469
Canola						
Production	2 460	1 775	1 756	871	1 703	1 533
Domestic use ^b	370	286	399	354	501	422
Crushers	362	279	393	349	495	418
Seed	7	7	6	5	6	5
Exports	2 033	1 392	1 380	517	1 202	944
Canola meal						
Production	203	156	220	206	252	234
Domestic use ^b	201	156	220	206	252	234
Exports	2	0	0	0	0	0
Canola oil						
Production	149	114	161	151	185	171
Domestic use	112	90	136	155	152	142
Exports	41	29	29	0	36	32
Pulses – major crops						
Production						
Lupins	1 968	1 055	1 215	726	1 180	891
Field peas	496	456	512	178	487	321
Chickpeas	230	162	258	136	178	116
Apparent domestic use ^b						
Lupins	516	546	599	750	468	591
Field peas	211	97	87	85	89	115
Chickpeas	17	12	13	13	9	9
Exports						
Lupins	1 504	509	416	175	712	236
Field peas	289	362	428	96	221	121
Chickpeas	243	176	272	113	190	152

^a Wheat and legume export figures are for winter crop years defined as follows: October–September for wheat; November–October for canola (seed and products), peas and lupins. ^b Domestic use may not equal production less exports in any one year due to reductions or increases in stock levels. ^c Calculated as a residual: production less exports less other domestic uses less change in stocks. ^p Preliminary. *Note:* The export data refer to market year export periods, so are not comparable with financial year export figures published elsewhere. *Sources:* ABS, *International Trade, Australia*, cat. no. 5465.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABARE.

2.2 Supply and use of Australian coarse grains ^a

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05 ^p
	kt	kt	kt	kt	kt	kt
Barley						
Production	5 032	6 743	8 280	3 865	10 382	6 454
Domestic use ^b	2 010	2 324	2 535	2 016	2 430	2 644
As malt and other human use	154	158	161	165	168	172
Feed	1 700	2 000	2 200	1 650	2 100	2 300
Seed	155	167	174	201	162	172
Export	3 325	4 567	5 274	2 608	6 996	4 819
Feed barley	1 524	2 143	2 971	885	4 241	2 799
Malting barley	1 234	1 824	1 705	1 099	2 135	1 409
Malt (grain equivalent)	569	602	600	624	624	612
Oats						
Production	1 118	1 050	1 434	957	2 018	1 057
Domestic use ^b	983	964	1 244	836	1 808	918
Human	119	122	125	128	131	134
Feed	833	805	1 076	656	1 635	743
Seed	31	38	44	52	41	41
Export	135	86	190	121	210	139
Triticale ^c						
Production	764	841	860	327	826	615
Domestic use ^b	764	841	860	327	826	615
Feed	744	821	840	305	809	598
Seed	19	20	20	22	17	17
Sorghum						
Production	2 116	1 935	2 021	1 465	2 009	1 748
Domestic use ^b	1 451	1 434	1 646	1 401	1 386	1 436
Feed	1 448	1 429	1 643	1 397	1 382	1 433
Seed	4	4	3	4	3	4
Export	493	665	501	375	64	623
Maize						
Production	406	345	454	310	395	312
Domestic use ^b	353	300	440	294	385	302
Human, industrial	96	99	101	104	106	109
Feed	255	200	338	189	277	192
Seed	1	1	1	1	1	1
Export	37	53	45	63	16	10
Total coarse grains						
Production	9 435	10 914	13 049	6 924	15 630	10 186
Domestic use ^b	5 560	5 863	6 726	4 874	6 834	5 916
Human, industrial	369	378	387	396	406	415
Feed	4 980	5 254	6 096	4 197	6 204	5 265
Seed	211	230	242	281	224	236
Export	4 179	5 201	5 903	2 810	7 844	5 280

^a Market years are November–October for barley, oats and triticale, and March–February for sorghum and maize. This means that the 1998-99 barley crop harvested in November 1998 to January 1999 is marketed from November 1998 to October 1999. The 1998-99 sorghum crop harvested in March to May 1999 is marketed from March 1999 to February 2000. The sum of domestic use and exports may differ from production as a result of changes in grain stock levels. ^b Domestic use may not equal production less exports in any one year due to reductions or increases in stock levels. ^c Excludes small quantities of triticale for export. ^p Preliminary.

Note: The export data refers to market year export periods and so are not comparable with financial year export figures published elsewhere.

Sources: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABARE.

2.3 Supply and use of Australian dairy products

	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05 p
Production of wholemilk	ML	10 847	10 545	11 271	10 326	10 075	10 125
Manufacture							
Butter a	kt	180	160	164	163	132	131
Cheese	kt	373	374	413	368	381	373
Non-cheddar	kt	157	161	175	173	179	159
Cheddar	kt	216	213	238	195	202	214
Wholemilk powder	kt	187	205	239	170	187	189
Skim milk powder b	kt	264	265	261	215	199	189
Casein	kt	15	13	14	13	10	10
Buttermilk powder	kt	18	16	17	16	16	19
Consumption							
Butter	kt	57	63	67	67	70	54
Cheese c	kt	219	219	246	281	231	230
Australian	kt	182	182	208	238	189	184
Wholemilk powder	kt	15	14	23	23	24	23
Skim milk powder b	kt	37	37	43	44	45	50
Casein	kt	1	1	1	1	1	2
Market milk	ML	1 934	1 934	1 924	1 941	1 992	1 912
Exports							
Butter and butterfat a	kt	137	120	123	111	83	69
Cheese	kt	220	219	218	208	212	227
Wholemilk powder	kt	153	167	165	142	117	105
Skim milk powder	kt	218	203	210	181	155	141
Casein	kt	14	10	9	8	8	7
Other products							
Fresh milk	ML	86	83	87	88	86	87
Other fresh products	kt	5	3	1	2	2	3
Condensed milk	kt	69	63	71	102	100	103
Other powders	kt	54	49	67	75	69	68
Imports							
Cheese	kt	32	37	38	44	40	42

a Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat production. **b** Includes mixed skim milk powder and buttermilk powder. **c** In natural equivalent weight. **p** Preliminary.

Sources: ABS, *Apparent Consumption of Foodstuffs, Australia*, cat. no. 4306.0, Canberra; ABS, *Apparent Consumption of Selected Foodstuffs, Australia*, cat. no. 4315.0, Canberra; ABS, *International Trade, Australia*, cat. no. 5465.0, Canberra; Australian Dairy Corporation, *Dairy Compendium*, Melbourne; Australian Dairy Corporation, *Monthly Statistics*, Melbourne; Australian Dairy Corporation; ABARE.

2.4 Supply and use of Australian meats

	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05 p
Beef and veal							
Slaughterings a	'000	8 642	8 930	8 587	9 228	8 779	8 853
Production b	kt	1 988	2 119	2 028	2 073	2 033	2 162
Exports c	kt	852	959	902	902	860	948
Consumption bd	kt	726	674	729	754	724	na
Closing stocks b	kt	30	30	30	30	30	30
Mutton							
Slaughterings	'000	15 585	16 628	14 441	13 657	10 421	11 443
Production b	kt	328	348	296	268	220	237
Exports bc	kt	171	180	158	119	120	148
Consumption bd	kt	102	112	89	65	48	52
Closing stocks b	kt	12	12	9	8	10	10
Lamb							
Slaughterings a	'000	17 557	18 629	17 400	16 870	16 562	17 331
Production b	kt	347	367	348	329	341	354
Exports c	kt	99	115	109	98	109	120
Consumption bd	kt	236	238	224	225	206	204
Closing stocks b	kt	5	5	5	5	5	5
Pig meat							
Slaughterings	'000	5 025	5 016	5 402	5 742	5 591	5 339
Production b	kt	363	365	396	420	406	388
Imports be	kt	37	26	44	47	60	81
Exports be	kt	39	44	59	63	51	43
Consumption bd	kt	380	366	407	443	452	na
Closing stocks – pork b	kt	3	3	4	4	4	4
Poultry meat f							
Slaughterings	million	402	397	428	418	436	na
Production b	kt	638	657	705	726	732	792
Exports b	kt	17	21	21	23	20	20
Consumption d	kt	621	635	684	703	712	772

a Includes calves. b Carcass weight. c Includes canned and miscellaneous product. d Apparent consumption. e Includes preserved pig meat. f Includes chicken, turkey and duck. p Preliminary.

Sources: ABS, *Apparent Consumption of Foodstuffs, Australia*, cat. no. 4306.0, Canberra; ABS, *International Trade, Australia*, cat. no. 5465.0, Canberra; ABS, *Principal Agricultural Commodities, Australia*, Preliminary, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; Department of Agriculture, Fisheries and Forestry, *Export Statistics*, Sydney; ABARE.

2.5 Supply and use of selected Australian horticultural products

	Unit	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04 p
Grapes and grape products							
Grape production							
Total	kt	1 294	1 338	1 591	1 833	1 549	2 094
Grape use							
Wine making	kt	1 101	1 129	1 422	1 606	1 411	1 895
Red grapes	kt	436	538	795	911	804	1 093
White grapes	kt	666	591	627	696	607	802
Drying and table	kt	193	209	169	227	137	198
Wine production							
Fortified wine	ML	21	27	19	23	na	na
Unfortified wine	ML	772	779	1 016	1 181	na	na
Total wine	ML	793	806	1 035	1 204	na	na
Domestic sales							
Table wine	ML	287	307	325	330	344	355
Red wine	ML	99	114	126	130	143	147
White wine	ML	188	193	200	200	202	208
Sparkling wine	ML	33	33	31	29	32	35
Fortified wine	ML	24	23	22	20	21	21
Other wine	ML	4	7	7	6	6	6
Total wine a	ML	348	369	385	385	402	417
Exports							
Table wine	ML	207	276	330	406	498	569
Red wine	ML	101	145	180	233	307	364
White wine	ML	106	131	150	173	191	205
Sparkling wine	ML	7	8	7	7	7	9
Fortified wine	ML	3	2	2	2	2	2
Other wine	ML	0	0	0	1	1	1
Total wine	ML	216	287	339	416	508	581
Imports							
Table wine	ML	20	14	8	9	12	12
Sparkling wine	ML	3	4	3	3	4	5
Fortified wine	ML	0	1	0	0	0	1
Other wine	ML	1	1	2	2	2	1
Total wine	ML	24	20	13	14	17	19
Dried vine fruit							
Production (dried weight)	kt	44	31	17	34	17	27
Exports	kt	14	5	6	6	10	7
Imports	kt	16	17	17	21	19	25
Table grapes							
Production	kt	70	67	65	87	na	na
Exports	kt	29	33	31	57	40	45

Continued

2.5 Supply and use of selected Australian horticultural products *continued*

	Unit	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04 p
Oranges and orange juice							
Navel oranges							
Production	kt	149	180	252	178	296	208
Fresh domestic consumption	kt	60	75	75	65	na	na
Processed	kt	28	36	78	26	na	na
Exports	kt	61	69	99	87	101	67
Valencia and other oranges							
Production	kt	299	337	399	236	337	199
Fresh consumption	kt	79	83	135	na	na	na
Processed	kt	168	211	213	na	na	na
Exports	kt	52	43	51	48	32	26
Total oranges							
Production	kt	448	517	651	414	633	410
Fresh consumption	kt	140	159	210	78	na	na
Processed	kt	196	247	291	201	na	na
Exports	kt	112	111	150	135	133	93
Imports	kt	6	14	12	9	9	13
Orange juice (equivalent tonnes of fresh oranges) b							
Production	kt	186	234	277	na	na	na
Exports of processed juice	kt	21	32	34	29	31	24
Imports of FCOJ	kt	367	293	309	325	380	336
Stocks of Australian FCOJ	kt	29	50	90	na	na	na
Apparent consumption	kt	503	445	462	na	na	na
Apples							
Production	kt	334	320	325	321	326	255
Fresh domestic consumption	kt	173	166	154	na	na	na
Processed	kt	136	121	131	na	na	na
Exports	kt	25	33	39	25	33	15
Tomatoes and tomato products							
Tomato production	kt	395	414	556	425	364	474
Tomato use							
Fresh domestic consumption	kt	81	96	na	na	na	na
Processed (raw material)	kt	309	368	na	na	na	na
Fresh exports	kt	5	5	4	3	3	4
Processed production	kt	117	138	na	na	na	na
Processed exports	kt	12	9	7	14	19	11
Processed imports	kt	34	24	22	16	19	27
Apparent processed consumption	kt	140	157	na	na	na	na

a Includes carbonated wine and vermouth. b 1 tonne fresh weight = 500 litres (single strength) orange juice. 1 tonne FCOJ = 13 Australian fresh fruit tonnes (approximately). p Preliminary. na Not available.

Note: FCOJ – Frozen concentrated orange juice.

Sources: ABS, *Australian Wine and Grape Industry*, cat. no. 1329.0, Canberra; ABS, *International Trade, Australia*, cat. no. 5465.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; Shepherd, A, *Wine Grapes*, ABARE Research Report 99.15, Canberra; Australian Horticultural Corporation, *Australian Horticulture Statistics Handbook, 1999-2000*, Sydney; Australian Processing Tomato Industry Council, *Annual Industry Survey 1999*, Blackburn South, Victoria; Australian Citrus Industry Council Inc, *Annual Report 2001*; ABARE.

3.1 Employment in food and beverage manufacturing ^a

	NSW ^b	Vic.	Qld.	SA	WA	Tas.	NT	Australia
	no.	no.	no.	no.	no.	no.	no.	no.
2002-03								
Meat and meat products	15 850	11 575	12 600	2 775	3 175	1 425	na	47 475
Dairy products	3 375	11 375	1 725	450	1 375	775	na	19 050
Fruit and vegetable processing	3 100	3 900	2 700	1 500	525	1 750	na	13 425
Oil and fat	825	825	na	200	225	na	na	2 175
Flour mill and cereal food	5 225	1 425	850	750	200	200	na	8 400
Bakery products	10 700	7 425	5 275	1 650	2 575	725	200	28 425
Other food	8 800	10 250	6 875	1 550	1 775	975	100	30 625
Beverages and malt	6 825	5 825	2 175	6 200	1 900	275	na	23 350
Food , beverage and tobacco nec	1 900	4 125	1 325	275	100	100	na	7 725
Total food and beverage	56 600	56 725	33 525	15 350	11 850	6 225	300	180 650
2003-04								
Meat and meat products	12 675	9 725	15 075	3 025	4 450	950	na	45 875
Dairy products	3 375	8 125	2 100	650	1 900	275	na	16 500
Fruit and vegetable processing	2 850	3 625	2 025	1 400	400	1 275	na	11 475
Oil and fat	400	600	300	na	200	100	na	750
Flour mill and cereal food	2 700	2 925	675	200	350	100	na	6 775
Bakery products	11 075	5 900	2 825	2 600	1 625	375	300	24 800
Other food	5 700	8 175	7 000	2 750	2 050	1 150	na	27 275
Beverages and malt	5 150	5 425	2 175	8 700	1 825	650	na	24 075
Food , beverage and tobacco nec	4 825	4 825	975	500	275	na	na	11 750
Total food and beverage	48 750	49 325	33 150	19 825	13 075	4 875	300	169 275
2004-05								
Meat and meat products	13 350	10 150	16 250	2 725	4 725	975	na	48 225
Dairy products	3 075	7 525	2 825	825	925	800	na	15 900
Fruit and vegetable processing	1 300	2 150	2 300	850	600	1 650	na	8 525
Oil and fat	300	375	1 250	na	250	na	na	1 975
Flour mill and cereal food	2 950	1 550	650	500	200	na	na	5 650
Bakery products	11 950	7 725	6 950	2 550	1 625	1 250	150	32 000
Other food	7 275	9 600	7 475	925	2 550	875	na	28 750
Beverages and malt	8 225	6 975	2 975	7 600	3 200	400	na	29 525
Food , beverage and tobacco nec	7 175	11 425	2 800	375	900	375	na	23 775
Total food and beverage	55 600	57 475	43 475	16 350	14 975	6 325	150	194 325

^a Includes proprietors and partners and employees working for farm businesses with an EVAO over \$22 500. Excludes non salaried directors, consultants, contractors and unpaid labor. ^b Includes ACT. **na** Not available.

Source: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Labour Force, Australia, Detailed - Electronic Delivery*, cat. no. 6291.0.55.001, Canberra; unpublished data ABS.

3.2 Summary statistics for the Australian processed food industry

	Employment at 30 June a		Wages and salaries b		Sales and service income c		Industry value added	
	1999-00	2000-01	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03
	'000	'000	\$m	\$m	\$m	\$m	\$m	\$m
Meat								
Meat processing	28	28	1 036	1 211	10 251	9 505	1 584	2 005
Poultry processing	13	16	556	614	3 315	3 604	941	957
Bacon, ham and smallgoods	7	8	294	313	1 964	2 060	451	510
Total	47	53	1 886	2 138	15 530	15 168	2 976	3 473
Dairy								
Milk and cream processing	6	5	310	260	2 724	2 803	696	506
Ice cream	3	2	59	69	478	520	110	133
Other dairy products	9	12	480	501	5 901	5 586	1 056	958
Total	17	19	849	831	9 103	8 909	1 862	1 598
Fruit and vegetables	11	16	568	581	4 001	4 439	1 063	1 072
Oil and fat	1	4	145	165	1 544	1 833	326	393
Flour mill and cereal food								
Flour mill products	2	3	125	131	1 608	1 775	334	339
Cereal food and baking mixes	6	7	239	274	2 078	2 319	543	600
Total	8	10	364	405	3 685	4 094	876	939
Bakery products								
Bread	10	12	452	449	1 712	1 814	718	693
Cakes and pastry products	10	9	233	239	956	1 028	346	366
Biscuits	5	7	222	237	1 050	1 045	409	431
Total	25	28	908	924	3 719	3 887	1 473	1 491
Other food								
Sugar	6	6	241	246	2 357	2 399	468	476
Confectionery	6	6	278	315	1 649	1 862	638	741
Seafood	4	4	121	133	1 595	1 515	218	225
Prepared animal and bird feed	5	4	228	240	2 666	3 083	493	495
Food nec	14	15	860	1 023	6 743	7 192	1 832	1 942
Total	35	35	1 727	1 958	15 010	16 052	3 648	3 879
Beverage and malt								
Soft drink, cordial and syrup	6	6	378	351	3 330	3 194	968	1 018
Beer and malt	3	4	284	292	3 165	3 420	1 287	1 310
Wine	9	12	661	637	5 079	4 866	1 717	1 397
Spirits	0	0	0	0	0	0	0	0
Total	18	22	1 323	1 279	11 574	11 479	3 971	3 725
Total food and beverages	163	187	7 770	8 281	64 165	65 861	16 195	16 568
Total manufacturing	933	946	42 331	45 887	294 543	309 283	81 137	88 688

a Includes working proprietors. Data not available after 2000-01. b Excludes drawings of working proprietors. c Previously turnover.
Sources: ABS, *Manufacturing Industry*, cat. no. 8221.0, Canberra; ABS unpublished data, Canberra.

3.3 New South Wales processed food industry, summary statistics

	Wages and salaries a		Turnover		Industry value added	
	1999-00	2001-02	1999-00	2001-02	1999-00	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
Meat						
Meat processing	257	290	1 707	2 718	374	445
Poultry processing	225	269	1 263	1 496	408	455
Bacon, ham and smallgoods	55	66	386	597	98	106
Total	536	624	3 356	4 811	880	1 005
Dairy						
Milk and cream processing	54	35	560	392	132	96
Ice cream	35	18	250	149	75	32
Other dairy products	67	84	536	1 296	123	190
Total	157	136	1 346	1 837	330	318
Fruit and vegetables	109	na	879	na	225	na
Oil and fat	38	54	423	605	100	121
Flour mill and cereal food						
Flour mill products	58	74	843	1 005	208	180
Cereal food and baking mixes	81	156	1 265	1 605	448	345
Total	138	230	2 107	2 611	656	524
Bakery products						
Bread	136	154	450	534	176	245
Cakes and pastry products	78	75	367	281	125	117
Biscuits	34	102	270	301	123	197
Total	248	331	1 087	1 115	425	559
Other food						
Sugar	na	23	na	654	na	64
Confectionery	na	52	na	318	na	114
Seafood	17	10	86	106	16	18
Prepared animal and bird feed	109	67	981	751	232	140
Food nec	204	404	1 079	2 693	385	828
Total	407	555	2 711	4 523	822	1 164
Beverage and malt						
Soft drink, cordial and syrup	85	170	997	1 459	310	445
Beer and malt	na	na	na	na	na	na
Wine	63	171	702	1 291	205	416
Spirits	na	na	na	na	na	na
Total	210	428	2 658	4 292	826	1 313
Total food and beverages b	1 842	2 564	14 567	21 170	4 264	5 523
Total manufacturing	11 660	14 227	73 259	93 896	23 103	26 167

a Excludes drawings of working proprietors. b Excludes tobacco. na Not available.

Source: ABS, *Manufacturing Industry, NSW and ACT*, cat. no. 8221.1, Canberra.

3.4 Victorian processed food industry, summary statistics

	Wages and salaries ^a		Turnover		Industry value added	
	1999-00	2001-02	1999-00	2001-02	1999-00	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
Meat						
Meat processing	164	177	1 042	1 844	234	266
Poultry processing	91	115	528	850	132	194
Bacon, ham and smallgoods	78	88	384	503	109	138
Total	333	380	1 955	3 198	475	598
Dairy						
Milk and cream processing	85	na	1 131	na	245	na
Ice cream	37	na	278	na	53	na
Other dairy products	270	334	3 414	4 123	773	740
Total	392	449	4 823	5 125	1 071	979
Fruit and vegetables	197	279	1 621	1 803	417	500
Oil and fat	24	na	311	na	84	na
Flour mill and cereal food						
Flour mill products	18	na	175	na	38	na
Cereal food and baking mixes	82	na	636	na	197	na
Total	99	68	811	513	235	162
Bakery products						
Bread	85	109	282	395	113	168
Cakes and pastry products	na	55	na	260	na	84
Biscuits	na	59	na	389	na	95
Total	228	223	1 013	1 044	333	347
Other food						
Sugar	na	na	na	na	na	na
Confectionery	181	171	819	1 025	238	387
Seafood	na	na	na	na	na	na
Prepared animal and bird feed	69	91	750	812	145	190
Food nec	168	270	1 083	2 204	290	590
Total	442	544	2 938	4 205	724	1 193
Beverage and malt						
Soft drink, cordial and syrup	na	72	na	659	na	179
Beer and malt	na	102	na	718	na	424
Wine	57	114	790	1 236	377	351
Spirits	na	1	na	14	na	4
Total	155	290	2 088	2 627	761	958
Total food and beverages ^b	1 871	2 368	15 558	19 688	4 099	5 059
Total manufacturing	11 679	13 759	74 312	88 041	22 159	25 757

^a Excludes drawings of working proprietors. ^b Excludes tobacco. **na** Not available.

Source: ABS, *Manufacturing Industry, Vic*, cat. no. 8221.2, Canberra.

3.5 Queensland processed food industry, summary statistics

	Wages and salaries a		Turnover		Industry value added	
	1999-00	2001-02	1999-00	2001-02	1999-00	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
Meat						
Meat processing	348	372	3 203	4 128	657	615
Poultry processing	57	84	320	420	92	139
Bacon, ham and smallgoods	54	70	336	372	91	105
Total	458	525	3 859	4 919	840	859
Dairy						
Milk and cream processing	68	91	639	747	81	143
Ice cream	na	7	na	61	na	20
Other dairy products	na	6	na	147	na	10
Total	92	104	899	954	129	173
Fruit and vegetables	60	87	390	564	132	143
Oil and fat	15	na	138	na	29	na
Flour mill and cereal food						
Flour mill products	12	16	151	156	26	41
Cereal food and baking mixes	8	11	101	91	29	24
Total	20	27	252	247	55	65
Bakery products						
Bread	67	81	295	369	109	132
Cakes and pastry products	40	na	139	na	47	na
Biscuits	27	na	216	na	115	na
Total	134	155	650	742	270	254
Other food						
Sugar	203	213	1 544	1 676	333	394
Confectionery	2	9	7	36	3	19
Seafood	9	17	172	294	26	31
Prepared animal and bird feed	22	27	335	583	47	61
Food nec	87	132	566	994	147	246
Total	323	399	2 624	3 583	555	751
Beverage and malt						
Soft drink, cordial and syrup	na	60	na	600	na	154
Beer and malt	na	na	na	na	na	na
Wine	na	na	na	na	na	na
Spirits	na	na	na	na	na	na
Total	94	132	1 122	1 371	329	505
Total food and beverages b	1 196	1 454	9 933	12 763	2 340	2 810
Total manufacturing	4 987	6 303	34 109	49 274	9 597	13 131

a Excludes drawings of working proprietors. b Excludes tobacco. na Not available.

Source: ABS, *Manufacturing Industry, Qld*, cat. no. 8221.3, Canberra.

3.6 Western Australian processed food industry, summary statistics

	Wages and salaries ^b		Turnover		Industry value added	
	1999-00	2001-02	1999-00	2001-02	1999-00	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
Meat						
Meat processing	89	80	521	807	131	131
Poultry processing	32	na	216	na	67	na
Bacon, ham and smallgoods	16	na	117	na	28	na
Total	138	150	854	1 265	226	254
Dairy						
Milk and cream processing	na	na	na	na	na	na
Ice cream	na	na	na	na	na	na
Other dairy products	12	na	84	na	25	na
Total	na	64	na	538	na	158
Fruit and vegetables	na	12	na	90	na	22
Oil and fat	5	na	53	na	12	na
Flour mill and cereal food						
Flour mill products	10	8	83	86	18	22
Cereal food and baking mixes	na	na	na	na	na	na
Total	na	na	na	na	na	na
Bakery products						
Bread	na	na	na	na	na	na
Cakes and pastry products	27	30	108	142	45	47
Biscuits	na	na	na	na	na	na
Total	53	76	235	366	95	123
Other food						
Sugar	na	na	na	na	na	na
Confectionery	1	na	8	na	4	na
Seafood	29	33	528	466	127	61
Prepared animal and bird feed	19	16	236	278	41	33
Food nec	na	46	na	630	na	78
Total	92	104	1 045	1 425	245	190
Beverage and malt						
Soft drink, cordial and syrup	na	36	na	338	na	87
Beer and malt	16	26	216	336	65	82
Wine	na	na	na	na	na	na
Spirits	na	na	na	na	na	na
Total	71	116	611	1 021	175	283
Total food and beverages ^b	447	545	3 509	5 028	922	1 085
Total manufacturing	2 655	3 566	18 652	29 269	5 058	7 162

^a Excludes drawings of working proprietors. ^b Excludes tobacco. **na** Not available.
 Source: ABS, *Manufacturing Industry, WA*, cat. no. 8221.5, Canberra.

3.7 South Australian processed food industry, summary statistics

	Wages and salaries a		Turnover		Industry value added	
	1999-00	2001-02	1999-00	2001-02	1999-00	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
Meat						
Meat processing	na	81	na	780	na	109
Poultry processing	na	na	na	na	na	na
Bacon, ham and smallgoods	19	na	118	na	20	na
Total	106	142	659	1 233	130	211
Dairy						
Milk and cream processing	na	na	na	na	na	na
Ice cream	na	na	na	na	na	na
Other dairy products	na	na	na	na	na	na
Total	35	39	397	443	138	115
Fruit and vegetables	32	28	283	166	92	63
Oil and fat	1	2	8	81	1	5
Flour mill and cereal food						
Flour mill products	na	5	na	84	na	24
Cereal food and baking mixes	na	19	na	88	na	54
Total	23	24	261	172	78	78
Bakery products						
Bread	37	47	118	166	51	74
Cakes and pastry products	na	na	na	na	na	na
Biscuits	na	na	na	na	na	na
Total	75	89	339	340	143	140
Other food						
Sugar	na	na	na	na	na	na
Confectionery	8	na	29	na	10	na
Seafood	17	20	185	356	43	34
Prepared animal and bird feed	8	na	144	na	15	na
Food nec	25	36	204	328	66	73
Total	59	78	562	924	134	146
Beverage and malt						
Soft drink, cordial and syrup	na	40	na	282	na	102
Beer and malt	15	22	187	333	54	67
Wine	159	273	1 923	2 012	863	744
Spirits	na	na	na	na	na	na
Total	201	na	2 373	na	983	na
Total food and beverages b	533	743	4 881	6 074	1 698	1 686
Total manufacturing	3 085	3 663	21 442	25 809	6 179	6 657

a Excludes drawings of working proprietors. b Excludes tobacco. na Not available.

Source: ABS, *Manufacturing Industry, SA*, cat. no. 8221.4, Canberra.

3.8 Tasmanian processed food industry, summary statistics

	Wages and salaries ^a		Turnover		Industry value added	
	1999-00	2001-02	1999-00	2001-02	1999-00	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
Meat						
Meat processing	28	na	181	na	45	na
Poultry processing	na	na	na	na	na	na
Bacon, ham and smallgoods	5	4	35	24	7	5
Total	na	29	na	211	na	44
Dairy						
Milk and cream processing	8	na	94	na	15	na
Ice cream	na	na	0	na	na	na
Other dairy products	23	27	223	62	61	51
Total	31	na	317	na	76	na
Fruit and vegetables	na	na	na	na	na	na
Oil and fat	0	na	1	na	na	na
Flour mill and cereal food						
Flour mill products	na	na	na	na	na	na
Cereal food and baking mixes	na	na	na	na	na	na
Total	na	na	na	na	na	na
Bakery products						
Bread	na	11	na	39	na	17
Cakes and pastry products	na	na	na	na	na	na
Biscuits	na	na	na	na	na	na
Total	13	14	49	54	21	23
Other food						
Sugar	na	na	na	na	na	na
Confectionery	na	na	na	na	na	na
Seafood	na	24	na	178	na	41
Prepared animal and bird feed	3	na	60	na	6	na
Food nec	1	2	3	25	1	5
Total	53	59	593	499	262	146
Beverage and malt						
Soft drink, cordial and syrup	1	na	13	na	3	na
Beer and malt	7	na	69	na	23	na
Wine	1	3	4	11	2	6
Spirits	na	na	na	na	na	na
Total	na	24	na	135	na	63
Total food and beverages ^b	191	207	1 676	1 496	535	453
Total manufacturing	745	816	5 490	5 464	1 769	1 895

^a Excludes drawings of working proprietors. ^b Excludes tobacco. **na** Not available.

Source: ABS, *Manufacturing Industry, Tas*, cat. no. 8221.6, Canberra.

3.9 Expenditure on R&D for the Australian processed food industry

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Meat & meat product processing							
Capital expenditure	np	2.01	np	0.83	2.65	3.48	4.77
Current expenditure	np	22.60	np	30.48	40.35	39.11	38.61
Total	13.89	24.61	35.53	31.31	43.00	42.59	43.38
Dairy product processing							
Capital expenditure	1.67	np	6.55	6.15	3.49	0.55	2.18
Current expenditure	23.29	np	35.90	43.10	38.28	29.05	29.96
Total	24.96	71.95	42.45	49.25	41.77	29.60	32.15
Fruit & vegetable processing							
Capital expenditure	np	0.65	2.29	1.65	0.91	0.53	1.10
Current expenditure	np	13.31	14.53	16.13	25.75	29.32	23.38
Total	16.64	13.96	16.81	17.78	26.65	29.84	24.48
Oil & fat							
Capital expenditure	np	np	np	np	np	np	np
Current expenditure	np	np	np	np	np	np	np
Total	np	np	np	np	np	np	np
Flour mill & cereal food							
Capital expenditure	5.67	0.78	1.21	5.86	np	np	3.45
Current expenditure	38.94	32.22	27.19	27.91	np	np	25.40
Total	44.60	33.00	28.39	33.77	22.34	13.98	28.85
Bakery products							
Capital expenditure	2.73	2.41	1.32	0.06	np	np	np
Current expenditure	7.39	4.98	5.39	8.59	np	np	np
Total	10.12	7.39	6.70	8.64	13.64	30.54	9.78
Other food							
Capital expenditure	6.21	2.71	3.24	8.04	7.62	7.90	10.72
Current expenditure	47.90	42.83	35.89	37.24	46.03	54.88	78.24
Total	54.11	45.54	39.13	45.28	53.65	62.77	88.96
Beverage and malt							
Capital expenditure	3.00	2.00	np	4.89	4.15	3.06	5.87
Current expenditure	10.60	8.35	np	10.05	24.83	19.85	20.45
Total	13.60	10.35	12.81	14.94	28.97	22.91	26.32
Total manufacturing							
Capital expenditure	267.73	221.77	191.87	194.45	220.68	211.46	250.82
Current expenditure	1 942.37	1 806.63	1 828.23	2 061.05	2 316.22	2 697.04	3 043.28
Total	2 210.10	2 028.40	2 020.10	2 255.50	2 536.90	2 908.50	3 294.10

np Not published.

Sources: ABS unpublished data, Canberra.

4.1 Retail food turnover, by state and category

	2001-02 \$m	2002-03 \$m	2003-04 \$m	2004-05 \$m
New South Wales				
Supermarkets and grocery stores	15 430	16 067	17 206	17 972
Takeaway food outlets	2 242	2 392	2 811	2 908
Liquor retailing	1 489	1 707	1 794	1 873
Cafes and restaurants	3 161	2 963	3 495	3 450
Other food retailing	3 076	3 507	3 295	3 410
Victoria				
Supermarkets and grocery stores	12 161	13 171	13 899	14 225
Takeaway food outlets	1 757	1 987	1 942	2 138
Liquor retailing	845	934	1 057	1 088
Cafes and restaurants	2 396	2 539	3 129	2 810
Other food retailing	1 786	1 683	1 986	2 227
Queensland				
Supermarkets and grocery stores	9 685	10 143	11 066	11 359
Takeaway food outlets	1 534	1 658	1 955	1 948
Liquor retailing	440	695	850	1 012
Cafes and restaurants	1 616	1 944	2 569	2 625
Other food retailing	1 271	1 246	1 408	1 344
Western Australia				
Supermarkets and grocery stores	5 100	5 626	5 809	6 093
Takeaway food outlets	791	802	937	895
Liquor retailing	661	740	760	834
Cafes and restaurants	952	1 177	1 223	1 350
Other food retailing	640	633	688	750
South Australia				
Supermarkets and grocery stores	3 521	3 838	4 163	4 466
Takeaway food outlets	534	534	506	573
Liquor retailing	303	282	270	297
Cafes and restaurants	565	583	661	681
Other food retailing	758	816	745	764
Tasmania				
Supermarkets and grocery stores	1 115	1 174	1 252	1 310
Takeaway food outlets	154	136	155	179
Liquor retailing	62	61	75	na
Cafes and restaurants	88	116	160	160
Other food retailing	135	114	164	na

Continued

4.1 Retail food turnover, by state and category *continued*

	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m
Australian Capital Territory				
Supermarkets and grocery stores	980	1 019	1 049	1 112
Takeaway food outlets	120	123	131	138
Liquor retailing	55	73	82	na
Cafes and restaurants	276	296	279	235
Other food retailing	193	160	158	na
Northern Territory				
Supermarkets and grocery stores	625	649	693	747
Takeaway food outlets	97	112	120	105
Liquor retailing	26	27	29	na
Cafes and restaurants	106	119	119	146
Other food retailing	22	46	49	na
Australia				
Supermarkets and grocery stores	48 617	51 686	55 136	57 284
Takeaway food outlets	7 229	7 744	8 556	8 885
Liquor retailing	3 880	4 520	4 917	5 303
Cafes and restaurants	9 160	9 737	11 634	11 457
Other food retailing	7 881	8 205	8 492	8 900
Total food and liquor retailing	76 767	81 891	88 735	91 829
Total retailing	167 404	178 501	193 520	201 235

na Not available.

Sources: ABS, *Retail Trade*, cat. no. 8501.0, Canberra; ABS, unpublished data, Canberra.

4.2 Consumer price index for food groups ^a

	2000-01	2001-02	2002-03	2003-04	2004-05
Food	136	143	148	152	155
Dairy and related products	142	151	157	159	165
Milk and cream	155	162	169	174	180
Cheese	116	128	131	133	141
Ice cream and other dairy products	144	154	160	158	158
Cereal products	149	156	162	163	163
Bread	173	181	185	184	182
Cakes and biscuits	138	144	150	152	153
Breakfast cereals	121	128	137	141	140
Other cereal products	125	130	136	141	141
Meat and seafoods	119	133	135	141	143
Beef and veal	118	139	141	148	154
Lamb and mutton	133	165	177	199	204
Pork	126	145	146	148	154
Poultry	94	99	98	103	103
Bacon and ham	120	134	134	136	134
Processed meat	128	144	147	150	152
Fish and other seafood	118	122	124	124	124
Fresh fruit and vegetables	122	128	136	144	141
Fresh fruit	132	153	145	157	161
Fresh vegetables	116	113	131	136	129
Non-alcoholic drinks and snack food	139	142	149	152	158
Soft drinks, waters and juices	127	129	134	136	141
Snacks and confectionery	154	159	168	174	179
Other food	132	139	143	144	144
Eggs	151	165	172	180	175
Jams, honey and sandwich spreads	145	149	172	177	178
Tea, coffee and food drinks	138	142	141	136	133
Food additives and condiments	125	130	131	130	129
Fats and oils	119	127	136	138	144
Food nec	131	138	140	142	144
Meals out and take away foods	143	148	153	158	163
Restaurant meals	146	150	156	161	167
Take away and fast foods	142	148	152	158	162

^a Weighted average, capital cities, base year 1989-90 = 100.

Source: ABS, *Consumer Price Index*, cat. no. 6401.0, Canberra

4.3 Average retail prices of selected foods

	Unit	2000-01 cents	2001-02 cents	2002-03 cents	2003-04 cents	2004-05 cents
Dairy products						
Milk, fresh	L	139	148	155	158	142
Cheese	500gm	348	384	377	381	412
Butter	500gm	203	222	230	238	268
Grain products						
Bread	650gm	241	256	266	253	250
Breakfast foods	550gm	293	309	337	328	336
Flour	kg	158	167	179	179	180
Rice	kg	166	176	191	201	202
Meat and seafood						
Beef	kg	1 112	1 311	1 325	1 394	1 449
Lamb	kg	763	935	1 016	1 143	1 170
Pig meat	kg	885	1 011	1 017	1 030	1 071
Chicken	kg	354	384	385	387	396
Seafood	210gm	262	256	251	247	254
Fruit and vegetables						
Oranges	kg	206	269	231	267	255
Banana	kg	230	267	235	214	248
Potatoes	kg	137	140	165	177	161
Tomatoes	kg	339	314	398	362	336
Carrots	kg	177	177	192	179	185
Onions	kg	151	183	168	224	212
Processed fruit						
Jam, strawberry	500gm	248	262	269	281	266
Other food						
Sugar	2kg	229	241	222	214	205
Tea	250gm	346	371	365	368	358
Coffee	150gm	612	616	617	543	577
Eggs	dozen	294	326	308	323	317
Margarine	500gm	174	190	220	234	242
Milk chocolate	250gm	317	323	332	336	344
Alcohol and beverages						
Beer, bottled, low alcohol	24x375mL	2 281	2 377	2 425	2 450	2 465
Scotch	30mL	371	385	392	398	422

Source: ABS, *Average Retail Prices of Selected Items*, cat. no. 6403.0, Canberra; ABARE.

4.4 Apparent consumption of selected foods Australia

		Average for 3 years ended					
		1948-49	1958-59	1968-69	1978-79	1988-89	1998-99
Meat and meat products							
Beef and veal	kg	49.5	56.2	40.0	64.8	40.0	36.4
Lamb	kg	11.4	13.3	20.5	14.4	14.9	11.8
Mutton	kg	20.5	23.1	18.8	3.6	7.3	4.5
Pigmeat	kg	3.2	4.6	6.7	13.3	17.5	19.0
Total meat	kg	84.6	97.2	85.9	96.1	79.8	71.6
Canned meat (canned weight)	kg	1.2	1.9	2.2	1.6	na	na
Bacon and ham (cured carcass weight)	kg	5.3	3.2	3.6	6.0	6.9	8.7
Total meat and meat products	kg	91.1	102.3	91.7	103.7	na	na
Poultry							
Poultry (dressed weight)	kg	na	na	8.3	17.1	24.1	30.8
Seafood a							
Fish (edible weight)							
Australian	kg	1.5	1.8	1.8	2.1	3.1	3.6
Imported	kg	2.1	2.1	2.7	3.0	3.6	4.5
Crustaceans and molluscs	kg	0.5	0.6	1.1	1.3	1.6	2.9
Total	kg	4.1	4.5	5.6	6.4	8.3	11.0
Dairy products							
Condensed, concentrated and evaporated milk							
Full cream							
Sweetened	kg	1.6	1.2	1.1	0.8	na	na
Unsweetened b	kg	1.8	2.9	3.5	2.5	na	na
Total	kg	3.4	4.1	4.6	3.3	2.2	0.4
Skim milk							
	kg	na	0.6	0.7	1.6	1.2	1.0
Powdered milk							
Full cream	kg	1.5	1.1	0.8	1.3	0.9	0.9
Skim	kg	0.3	1.1	4.3	2.7	2.8	1.8
Infants' and invalids' food	kg	0.6	1.0	1.3	1.2	1.2	na
Cheese c	kg	2.5	2.6	3.5	5.3	8.8	10.7
Market milk (fluid) d	L	138.7	128.7	128.2	100.5	101.7	102.4
Total e	kg	22.3	22.1	25.4	22.1	23.8	23.3
Fruit and fruit products							
Fresh fruit (incl. fruit for fruit juice)							
Citrus	kg	16.9	16.1	22.5	34.5	39.1	56.4
Other	kg	39.5	35.6	40.8	34.6	49.9	55.4
Jams, preserves etc. (product weight)	kg	5.6	3.9	3.3	2.0	2.1	1.9
Dried fruit (product weight)	kg	3.9	2.8	2.5	2.0	2.4	3.0
Processed fruit (product weight)	kg	3.4	6.0	9.9	10.5	8.4	6.8
Total (fresh fruit equivalent)	kg	80.9	72.2	86.5	91.0	111.6	135.0
Vegetables							
Potatoes	kg	56.3	51.7	53.7	50.1	61.5	68.0
Other root and bulb vegetables f	kg	19.1	15.9	17.1	16.7	19.3	24.4
Tomatoes	kg	11.5	13.0	14.2	13.6	19.3	24.9
Leafy and green vegetables	kg	20.5	17.9	21.3	24.3	23.8	19.5
Other vegetables	kg	22.3	18.6	18.1	17.9	24.2	25.1
Total (fresh equivalent weight)	kg	129.7	117.1	124.3	122.5	148.1	162.0
Eggs and egg products							
Total g	doz.	12.7	10.2	12.6	12.4	na	na
Equivalent number of eggs g	no.	255.0	206.0	222.0	220.0	146.0	137.0

Continued

4.4 Apparent consumption of selected foods Australia *continued*

		Average for 3 years ended					
		1948-49	1958-59	1968-69	1978-79	1988-89	1998-99
Grain products							
Wheaten flour h	kg	91.6	82.3	77.4	69.6	72.6	69.7
Breakfast foods	kg	6.1	6.2	6.8	7.8	9.7	7.9
Table rice	kg	0.4	na	1.9	2.4	na	7.1
Bread	kg	64.0	69.1	59.5	47.7	44.4	53.4
Total grain products	kg	162.1	na	145.6	127.5	na	138.1
Nuts (in shell)							
Peanuts	kg	4.2	3.1	2.8	2.1	2.3	2.3
Tree nuts	kg	1.8	3.4	5.8	2.9	3.8	4.8
Total nuts	kg	6.0	6.5	8.6	5.0	6.1	7.1
Oils and fats							
Butter i	kg	11.2	12.3	9.8	5.1	3.2	2.9
Margarine							
Table	kg	0.4	na	1.5	5.4	6.8	4.5
Other	kg	2.4	2.2	3.4	3.1	2.2	1.9
Total (fat content) j	kg	14.0	na	14.3	21.6	20.4	18.5
Sugars							
Cane sugar							
As refined sugar	kg	31.2	27.0	21.0	14.9	8.8	na
In manufactured foods	kg	23.1	23.6	27.7	34.6	33.9	na
Total	kg	54.3	50.6	48.7	49.5	42.7	na
Total sugars k	kg	56.8	53.0	51.9	54.5	48.3	43.4
Beverages							
Tea	kg	2.9	2.7	2.3	1.7	1.2	0.9
Coffee l	kg	0.5	0.6	1.2	1.6	2.0	2.4
Aerated / carbonated waters m	L	na	na	47.3	67.4	87.4	113.0
Beer	L	76.8	99.7	113.5	133.2	113.1	93.2
Wine	L	5.9	5.0	8.2	14.7	20.2	19.8
Alcohol content n							
Beer	L al	3.6	4.8	5.5	6.4	5.1	4.0
Wine	L al	0.8	0.9	1.2	2.0	2.4	2.3
Spirits	L al	0.8	0.7	0.9	1.2	1.2	1.2
Total	L al	5.2	6.4	7.5	9.6	8.7	7.5

a Comprises fresh, frozen and otherwise prepared seafood. **b** Included in 'Ice-cream mix' prior to 1972-73. **c** Combined product and natural weight equivalent weights prior to 1971-72. **d** Prior to 1978-79 known as fluid whole milk. **e** Includes an allowance for estimated cream consumption. Excludes infants and invalids food after 1993-94. **f** Sweet potatoes included with 'Other root and bulb vegetables' since 1968-69; formerly included with 'Other vegetables'. **g** Data from 1988-89 onwards includes an estimate for home production of eggs. **h** Includes flour for breadmaking. From 1994-95 data excludes flour used in production of starch and gluten. **i** Includes butter equivalent of butter oil, butter concentrate and ghee. **j** Includes an estimate for vegetable oils and other fats. Prior to 1975-76 this was estimated at 2 kg, from 1975-76 onwards estimated at 10 kg. **k** Includes sugar content of syrups, honey and glucose. **l** Coffee and coffee products in terms of roasted coffee. **m** Includes bulk pre-mix and post-mix concentrates in terms of drink equivalent. **n** From 1984-85, data for beer have been compiled on the basis of excise data. Prior to this the alcohol content of beer was calculated using 2.4 per cent by volume for low alcohol beer and 4.8 per cent for other beer. **na** Not available.

Source: ABS 2000, *Apparent Consumption of Foodstuffs, 1997-98 and 1998-99*, cat. no. 4306.0, Canberra.

4.5 Average weekly household expenditure on food and beverages

	1975-76	1988-89	1998-99	2003-04
	\$	\$	\$	\$
Bread, cakes and cereals	3.83	10.88	15.14	16.06
Bread	1.80	4.60	5.51	5.91
Flour	0.10	0.23	0.22	0.20
Cakes, biscuits, etc	1.42	3.93	5.99	6.42
Breakfast and other cereals	0.52	2.11	3.43	3.53
Meat and seafoods	8.06	18.68	18.75	23.87
Beef and veal	3.13	4.38	3.59	4.13
Lamb and mutton	1.16	2.32	1.63	2.10
Pork	0.31	0.90	0.94	1.11
Poultry and game	0.85	2.34	2.89	3.96
Processed meat etc	2.04	6.64	6.75	8.72
Fish and other seafood	0.57	2.10	2.95	3.85
Dairy products	3.69	7.68	10.50	11.26
Fresh milk and cream	2.32	4.63	5.89	5.64
Cheese	0.56	1.84	2.53	3.05
Butter	0.51	0.45	0.38	0.43
Other dairy products	0.30	0.76	1.70	2.14
Edible oils and fats	0.70	1.30	1.31	1.39
Margarine	0.37	0.83	0.70	0.66
Edible oils and fats nec	0.33	0.47	0.61	0.73
Fruit and vegetables	4.45	13.15	16.52	20.38
Fresh fruit	1.36	4.58	6.05	7.55
Other frozen and processed fruit	0.24	0.45	0.60	0.75
Dried fruit and nuts	0.31	0.88	1.16	1.47
Potatoes	0.47	1.23	1.17	1.23
Other fresh vegetables	1.40	4.50	5.65	7.11
Other frozen and processed vegetables	0.67	1.51	1.89	2.27
Non-alcoholic drinks and snack food	3.34	12.30	17.43	18.72
Soft drinks, cordials, aerated waters etc	1.46	5.03	6.97	6.45
Fruit and vegetable juices	0.37	1.95	2.36	2.57
Snacks and confectionery	1.51	5.32	8.10	9.70
Other food	3.45	8.33	13.78	19.09
Eggs	0.73	0.85	0.88	1.06
Sugar	0.25	0.42	0.39	0.33
Syrups, honey, jams, jellies etc	0.35	0.51	0.77	0.95
Tea, coffee and food drinks	0.60	2.39	3.31	3.51
Food nec	1.52	4.16	8.43	13.24
Alcoholic drinks	6.54	16.91	20.44	23.32
Beer	4.36	9.74	9.28	9.25
Wine	0.94	3.07	5.29	6.33
Spirits and other drinks	1.24	4.10	5.87	7.74
Meals out and take away foods	6.10	23.47	33.55	42.10
Total food and beverage expenditure	40.18	112.73	147.42	176.19
Total household expenditure	172.35	502.71	698.97	883.45

Source: ABS, Household expenditure survey, *Australia*, electronic data service, cat. no. 6535.0.55.001, Canberra

5.1 Australian food exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	532	528	625	753	938	993	598	555
Fish or shellfish	470	517	639	771	867	772	676	584
Horticulture								
Vegetables	209	218	191	201	218	199	161	155
Fruit and nuts	359	372	396	476	561	531	406	461
Total	568	590	587	677	779	730	568	616
Grains a	4 267	4 193	4 208	5 294	5 854	3 873	4 654	4 655
Oilseeds	364	683	798	721	752	400	549	492
Food nec	37	88	54	81	59	72	45	44
Substantially and elaborately transformed								
Meat								
Meat processing	3 714	3 986	4 440	5 770	6 215	5 625	5 722	6 901
Poultry processing	18	23	21	26	26	22	20	20
Bacon, ham and smallgoods	64	61	86	65	80	82	84	106
Total	3 795	4 070	4 548	5 862	6 320	5 729	5 826	7 028
Seafood	704	704	899	943	792	711	640	652
Dairy								
Milk and cream processing	897	1 056	1 126	1 550	1 650	1 176	1 073	1 107
Ice cream	47	41	36	34	32	29	35	41
Other dairy products	1 008	1 193	1 305	1 486	1 592	1 285	1 174	1 334
Total	1 952	2 291	2 467	3 070	3 275	2 490	2 282	2 482
Fruit and vegetables	436	480	522	566	656	528	508	502
Oil and fat	167	170	131	129	147	144	146	150
Flour mill and cereal food								
Flour mill products	174	204	209	207	233	213	202	222
Cereal food and baking mix	528	513	529	544	400	257	217	213
Total	702	717	738	751	632	471	419	435
Bakery products								
Bread, cake and pastry	11	11	19	15	8	3	4	5
Biscuit	83	79	69	73	92	96	105	113
Total	94	89	88	88	99	99	109	117
Other food								
Sugar a	1 742	1 377	1 111	1 236	1 446	1 238	1 000	1 403
Confectionery	162	176	230	261	287	291	267	250
Food nec	788	734	900	1 087	1 148	876	931	935
Total	2 692	2 288	2 241	2 585	2 881	2 405	2 197	2 588
Beverages and malt								
Soft drink, cordial and syrup	28	23	26	45	30	47	37	35
Beer and malt	216	207	213	266	317	324	282	241
Wine	874	1 068	1 374	1 753	2 105	2 424	2 494	2 716
Spirit	31	38	55	73	81	72	59	75
Total	1 150	1 336	1 667	2 136	2 533	2 867	2 872	3 066
Total food and beverage								
Minimally transformed	6 238	6 601	6 911	8 297	9 249	6 840	7 090	6 946
Substantially transformed	11 460	11 899	13 027	15 826	17 000	15 083	14 657	16 688
Elaborately transformed	232	247	273	302	336	360	342	332
Total	17 929	18 747	20 211	24 425	26 585	22 284	22 089	23 966

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.2 Australian grain exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Cereals								
Barley, feed	264	427	326	409	585	233	627	667
Barley, malting	280	271	320	467	432	457	371	378
Maize	3	6	11	15	14	13	6	6
Oats	30	38	27	22	37	44	38	36
Rice, husked (paddy)	1	29	17	8	29	9	0	0
Sorghum	50	14	4	59	109	17	61	96
Wheat	3 630	3 398	3 413	4 135	4 527	3 036	3 399	3 396
Other ^a	8	10	11	11	10	5	4	4
Total	4 267	4 193	4 130	5 126	5 743	3 814	4 506	4 582
Oilseeds								
Canola	256	558	638	544	572	289	453	397
Cottonseed	68	91	122	137	148	82	62	55
Sunflowerseed	7	10	19	11	2	7	4	6
Other	33	25	16	28	28	22	30	35
Total	364	683	796	720	751	400	549	492
Other	0	0	78	168	111	58	148	73
Substantially and elaborately transformed								
Milled								
Barley, maize, oats	13	14	13	15	21	23	26	28
Rice	394	380	363	357	253	101	64	52
Wheat	16	12	13	15	16	15	12	13
Other	2	1	1	1	2	1	1	1
Total	425	406	389	388	291	139	103	94
Flour								
Rice	7	8	7	5	4	3	4	3
Wheat	57	69	68	62	84	73	76	93
Other	1	1	1	1	1	1	2	3
Total	65	77	76	69	90	77	82	99
Oil								
Canola	24	52	25	18	25	30	41	41
Cottonseed	18	2	0	1	2	1	1	0
Sunflowerseed	4	7	6	10	11	9	2	5
Other	92	85	79	72	75	70	62	62
Total	139	145	110	101	113	109	105	108
Cereal starches								
Wheat	77	99	104	105	104	97	78	79
Rice	1	1	1	1	1	2	3	1
Other	1	0	0	0	0	0	0	0
Total	78	100	105	107	105	98	81	81
Malt	173	170	166	216	254	256	233	223
Preparations of cereals								
Biscuits	83	79	69	73	92	96	105	113
Breads and cakes	11	11	19	15	8	3	4	5
Pasta	25	23	31	34	33	40	35	39
Other	108	110	136	154	112	111	114	119
Total	228	223	255	275	244	249	258	275
Total grains								
Minimally transformed	4 630	4 877	5 004	6 014	6 606	4 272	5 203	5 147
Substantially transformed	1 033	1 050	1 027	1 080	1 037	895	821	825
Elaborately transformed	74	72	75	75	60	34	41	55
Total	5 738	5 999	6 107	7 170	7 702	5 201	6 066	6 027

^a Includes ABARE estimates where ABS confidentiality restrictions apply.
 Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.3 Australian meat and livestock exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Live animals a								
Cattle	333	343	433	482	526	562	314	335
Sheep	193	182	180	258	392	408	266	207
Other	6	4	12	14	20	23	18	13
Total live animal exports	532	528	625	753	938	993	598	555
Meat and meat products								
Beef and veal b								
Fresh, chilled or frozen								
Carcasses	55	49	9	14	11	5	4	4
Hindquarters and forequarters								
Bone-in	44	56	58	47	20	21	10	10
Boneless	336	401	417	461	461	337	253	300
Cuts								
Bone-in	28	51	54	80	94	108	103	160
Boneless	2 236	2 379	2 651	3 525	3 746	3 436	3 557	4 405
Other products c	144	161	205	272	230	200	303	460
Beef and veal products, otherwise prepared or preserved d	39	41	44	55	55	57	83	82
Total beef and veal	2 883	3 137	3 437	4 453	4 617	4 163	4 313	5 422
Sheep meat								
Fresh, chilled or frozen								
Carcasses	78	80	74	97	106	102	81	89
Cuts								
Bone-in	355	378	437	593	727	625	682	732
Boneless	219	178	195	261	306	298	283	296
Other products c	40	44	39	51	46	43	48	44
Sheep meat products, otherwise prepared or preserved d	2	3	3	3	5	3	3	2
Total sheep meat	695	683	747	1 006	1 190	1 070	1 097	1 164
Pig meat								
Fresh, chilled or frozen								
Carcasses	3	11	91	93	123	115	84	70
Hams, shoulders and cuts	5	3	2	5	8	7	9	11
Other pig meat nec	44	57	66	88	134	135	88	69
Other products c	3	2	2	5	5	6	7	8
Pig meat products, otherwise prepared or preserved d	1	1	1	2	1	2	2	3
Total pig meat	55	74	162	192	271	264	190	161
Poultry meat e	18	23	21	26	26	22	20	20
Bacon, ham and smallgoods	64	61	86	65	80	82	84	106
Other meat f								
Fresh, chilled or frozen								
Goat meat	24	22	27	39	46	47	49	71
Horse, ass, mule and hinny meat	21	26	20	17	19	14	11	9
Kangaroo meat	8	11	10	17	30	27	26	25
Other meat and meat products c	17	19	27	33	26	26	23	29
Other meat products, otherwise prepared or preserved d	11	13	11	12	15	12	13	19
Total other meat	81	92	95	118	136	127	122	154
Total meat and meat product exports	3 795	4 070	4 548	5 862	6 320	5 729	5 826	7 028

a Excludes animals for breeding. b Includes buffalo meat. c Includes edible offal, tongues, livers or tripe. d Includes meat and animal products either salted, in brine, dried, smoked, canned or bottled. e Includes meat and other food products from fowls, turkeys, ducks, geese, guinea fowls and other poultry.

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.4 Australian dairy exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Butter and butterfat a	238	294	291	291	297	224	182	188
Cheese								
Unprocessed cheddar	225	239	286	328	301	249	253	263
Processed cheddar	177	206	227	227	167	143	124	171
Unprocessed other	134	175	180	236	258	185	165	219
Processed other	23	31	33	56	112	93	63	58
Fresh, unripened or uncured b	39	38	71	87	179	116	122	154
Grated or powdered cheese	8	7	9	17	16	13	11	10
Total cheese	607	695	807	950	1 033	800	738	875
Wholemilk powder	275	364	403	580	571	380	321	324
Skim milk powder	444	496	478	694	698	406	386	420
Casein	43	67	81	89	77	43	48	56
Other products								
Fresh milk	67	76	81	82	98	98	104	109
Icecream	47	41	36	34	32	29	35	41
Other fresh products	22	18	20	13	8	6	10	9
Condensed milk	58	82	88	111	124	133	121	140
Other powders	116	117	159	193	275	275	250	243
Lactose	2	2	3	9	6	6	7	10
Yoghurt	6	6	7	8	8	9	9	8
Other dairy products	26	33	14	15	49	88	75	62
Total	1 952	2 291	2 467	3 070	3 277	2 495	2 286	2 486

a Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat production. b Includes blue veined cheese.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.5 Australian seafood exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Fish								
Minimally transformed								
Live	16	13	24	42	47	47	39	35
Fresh or chilled								
Tuna a	70	72	101	148	165	107	125	67
Salmon	12	8	6	12	14	7	2	8
Other fish	9	7	10	13	27	25	21	18
Total	92	87	116	174	206	138	148	93
Whole frozen								
Tuna a	10	31	105	117	154	213	146	95
Salmon	2	2	3	4	1	3	0	1
Whiting	4	3	3	3	2	3	2	4
Other fish	27	51	19	11	20	19	14	17
Total	42	87	130	135	178	238	163	117
Substantially transformed								
Fillets								
Fresh or chilled	5	5	5	7	7	4	1	2
Frozen	27	44	37	18	21	20	16	17
Total	32	49	42	25	27	24	17	19
Other frozen	25	20	57	75	13	6	9	6
Elaborately transformed								
Dried, salted or smoked								
Salmon	1	1	1	2	1	1	1	0
Other fish	9	6	13	14	15	17	19	19
Total	10	7	14	16	16	18	19	20
Canned	2	3	5	4	5	5	6	7
Other processed	7	4	0	1	2	1	2	1
Total fish	227	270	387	472	494	479	403	297

Continued

5.5 Australian seafood exports, by level of transformation *continued*

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Shellfish								
Minimally transformed								
Live fresh or chilled								
Whole								
Rock lobster	254	269	296	318	307	228	228	239
Crabs	23	16	19	28	23	17	14	14
Other crustaceans	0	0	0	3	1	0	0	0
Abalone	37	42	51	61	75	75	77	84
Other molluscs	5	2	2	1	1	1	0	1
Other	1	0	1	10	30	28	8	1
Total	320	330	369	421	437	349	326	339
Substantially transformed								
Rock lobster								
Frozen green	17	17	35	42	29	25	21	21
Cooked	88	87	142	101	84	91	70	70
Tails	64	76	95	60	65	113	103	101
Other	1	3	10	12	7	6	6	9
Total	170	183	282	215	185	235	199	200
Prawns								
Headless	41	25	21	25	19	12	5	7
Whole frozen	189	196	209	258	239	193	151	153
Other	5	4	14	7	5	4	4	3
Total	234	224	244	291	263	208	161	163
Crabs	4	3	4	4	7	4	4	4
Other crustaceans	13	14	16	27	19	14	9	10
Abalone	34	37	43	43	48	34	41	39
Scallops	33	31	39	48	31	26	35	32
Other molluscs	2	3	3	6	4	2	1	2
Elaborately transformed								
Dried salted								
Molluscs	6	7	7	12	8	9	8	8
Canned								
Abalone	120	106	129	145	140	107	120	139
Other shellfish	8	11	12	26	7	0	0	0
Other preserved	1	1	1	1	15	13	9	0
Seafood extracts	0	0	0	0	0	0	0	0
Seafood meals and flours	1	1	2	2	2	3	2	1
Total	131	119	143	174	164	123	132	141
Total shellfish	948	952	1 151	1 242	1 166	1 005	914	939
Total seafood								
Minimally transformed	470	517	639	771	868	773	677	584
Substantially transformed	548	564	730	737	597	554	474	475
Elaborately transformed	156	140	169	207	195	157	166	177
Total	1 174	1 222	1 538	1 714	1 660	1 484	1 317	1 236

a Exports of tuna landed in Australia. Tuna shipped at sea or captured under joint venture or bilateral agreements are not included.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.6 Selected Australian fruit and nut exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Fruit								
Oranges	110	119	123	150	153	146	107	118
Grapes	53	67	74	72	136	96	85	109
Apples	38	30	36	46	34	41	20	17
Pears	24	19	20	24	20	23	12	12
Mandarins	21	22	26	37	40	49	43	41
Plums	13	18	16	25	22	26	13	16
Melons	14	12	16	18	20	17	15	16
Mangoes	13	10	11	11	14	12	11	13
Nectarines	5	13	16	16	27	23	12	15
Other fruit	39	38	39	49	58	63	41	50
Total fruit	329	349	376	447	522	496	358	406
Nuts, in shell								
Macadamias	6	8	12	20	25	24	35	41
Almonds	7	10	3	3	10	6	9	9
Other nuts	16	5	5	5	4	5	4	5
Total nuts	30	23	20	28	39	35	48	55
Substantially transformed								
Canned or bottled								
Pears	35	30	31	30	28	29	23	17
Fruit salads and mixtures	23	28	28	23	23	27	20	18
Peaches	14	23	19	20	19	31	18	9
Pineapples	4	4	4	3	4	3	3	3
Apricots	3	3	2	2	3	3	2	1
Apples	0	0	0	0	0	0	0	0
Other canned or bottled fruit	4	7	7	8	7	8	7	7
Total canned or bottled fruit	83	96	91	86	85	102	73	56
Dried								
Grapes	30	36	13	17	14	20	15	15
Other dried fruit	6	3	2	3	2	2	2	3
Total dried fruit	36	39	15	19	16	22	17	18
Juice								
Orange, frozen or otherwise	15	13	17	22	17	17	14	18
Grape	11	11	10	12	13	12	13	12
Apple	5	4	8	13	5	0	0	0
Pineapple	1	1	1	1	2	3	3	2
Other fruit juice	23	18	25	23	37	41	43	55
Total fruit juice	56	47	62	72	73	73	72	87
Shelled nuts								
Macadamias	44	47	66	57	86	64	71	104
Other shelled nuts	7	15	16	11	15	16	24	35
Total shelled nuts	51	61	82	68	101	79	95	139
Jams, spreads, pastes etc	14	11	11	10	10	10	14	16
Otherwise processed fruits								
Fruits preserved by sugar	4	4	4	4	4	3	2	1
Frozen fruits	1	1	1	1	1	1	1	1
Other processed fruits	2	2	1	2	2	2	1	1
Total otherwise processed fruits	7	6	6	7	6	7	4	4
Total fruit and nut products								
Minimally transformed	359	372	396	476	561	531	406	461
Substantially transformed	247	261	266	262	291	293	275	320
Total	606	633	662	738	852	824	681	781

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.7 Selected Australian vegetable exports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Vegetables								
Asparagus	32	46	46	43	40	34	22	27
Carrots	35	43	36	40	49	48	39	37
Cauliflowers	22	23	23	30	28	23	13	6
Onions	29	28	15	19	28	25	24	21
Headed broccoli	18	16	15	14	15	13	10	9
Potatoes (excluding seed)	8	9	9	6	8	13	14	16
Tomatoes	9	8	7	7	4	7	8	6
Lettuce	8	7	7	8	9	6	4	5
Chinese cabbage	6	6	4	6	5	4	2	2
Other vegetables	42	32	27	29	31	26	24	25
Total vegetables	209	218	191	201	217	199	161	155
Substantially transformed								
Canned or bottled								
Tomatoes and tomato products	12	16	14	14	26	29	17	17
Ginger in syrup	6	6	5	5	5	6	5	5
Other canned or bottled vegetables	2	3	4	5	3	4	3	3
Total canned or bottled vegetables	20	24	23	24	34	38	25	25
Dried								
Peas	66	62	81	92	133	37	52	33
Beans	33	47	76	91	88	66	56	37
Other dried vegetables	4	11	5	9	4	2	3	7
Total dried vegetables	103	120	162	192	224	105	111	77
Juice								
Vegetable juice mixtures	8	12	9	1	0	0	2	11
Single vegetable juices	1	4	9	22	28	23	21	6
Tomato juice	0	1	1	1	1	1	1	1
Total juice	10	17	19	25	29	25	24	17
Frozen								
Potatoes	10	7	11	8	11	18	23	14
Mixed vegetables	3	8	5	5	3	3	5	5
Corn	5	4	2	1	8	5	1	1
Peas	0	0	1	1	1	0	0	0
Other frozen vegetables	8	5	5	7	8	2	10	5
Total frozen vegetables	26	24	23	21	32	27	38	26
Saps and extracts								
Hop extracts	4	2	2	4	3	3	4	4
Miscellaneous vegetable extracts	5	6	4	7	16	14	10	11
Total vegetable extracts	9	8	6	11	19	17	14	15
Otherwise processed vegetables								
Hops	6	8	6	8	9	5	6	4
Ginger	4	5	5	6	6	7	7	7
Mixed vegetables	3	3	2	2	2	2	1	3
Potatoes	3	3	2	5	2	1	1	1
Other	5	7	7	10	8	7	7	7
Total otherwise processed vegetables	22	27	22	31	27	23	21	21
Total vegetable products								
Minimally transformed	209	218	191	201	217	199	161	155
Substantially transformed	189	220	255	304	365	235	233	182
Total	398	438	446	505	583	434	394	337

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.8 Australian food exports, by level of transformation and state, 2004-05 ^p

	NSW \$m	Vic \$m	Qld \$m	WA \$m	SA \$m	Tas \$m	NT \$m
Minimally transformed							
Live animals except fish	8	17	33	343	18	7	129
Fish or shellfish	22	45	81	133	209	93	1
Horticulture							
Vegetables	12	37	28	50	6	21	0
Fruit and nuts	55	201	61	31	57	13	1
Total	67	238	89	81	63	35	1
Grains	694	395	276	1 756	399	0	0
Oilseeds	49	98	65	182	89	9	0
Food nec	4	9	10	11	7	3	1
Substantially and elaborately transformed							
Meat							
Meat processing	1 349	1 229	3 334	416	425	148	2
Poultry processing	5	8	4	2	0	0	0
Bacon, ham and smallgoods	24	54	7	9	12	0	0
Total	1 378	1 291	3 346	427	437	148	2
Seafood	628	628	628	628	628	628	628
Dairy							
Milk and cream processing	29	991	26	30	2	28	0
Ice cream	15	3	5	19	0	0	0
Other dairy products	62	1 071	46	20	62	72	0
Total	106	2 065	78	69	64	101	0
Fruit and vegetables	126	204	97	18	53	3	0
Oil and fat	47	49	48	6	1	0	0
Flour mill and cereal food							
Flour mill products	175	10	9	23	5	0	0
Cereal food and baking mix	146	31	13	7	16	0	0
Total	321	41	22	30	21	0	0
Bakery products							
Bread, cake and pastry	1	3	1	0	0	0	0
Biscuit	51	27	25	1	10	0	0
Total	52	29	25	1	10	0	0
Other food							
Sugar a	44	1	1 356	1	0	0	0
Confectionery	27	193	3	2	0	24	0
Food nec	371	211	242	30	23	15	1
Total	442	405	1 601	33	23	39	1
Beverages and malt							
Soft drink, cordial and syrup	10	3	20	0	1	0	0
Beer and malt	5	119	0	52	48	0	0
Wine	557	532	2	49	1 571	4	0
Spirit	7	2	15	0	13	0	0
Total	579	656	36	102	1 633	4	0
Total food and beverage							
Minimally transformed	845	802	553	2 506	786	146	131
Substantially transformed	3 581	5 196	5 860	1 307	2 860	899	632
Elaborately transformed	98	172	21	7	10	24	0
Total b	4 524	6 171	6 434	3 820	3 656	1 069	763

a Includes ABARE estimates where ABS confidentiality restrictions apply. b Due to state level ABS confidentiality restrictions, these totals do not correspond with table 5.1.

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.9 Australian air freight exports of food, by level of transformation ^a

	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m
Minimally transformed					
Live animals except fish	111	150	143	138	120
Fish or shellfish					
Fish	244	238	192	186	133
Shellfish	549	552	445	404	411
Total	793	790	637	590	544
Horticulture					
Vegetables	97	85	71	52	59
Fruit and nuts	92	100	93	64	87
Total	189	185	164	117	146
Grains	0	0	0	0	0
Oilseeds	2	3	3	3	2
Substantially transformed					
Meat					
Beef	72	81	73	76	103
Other meat and offal	268	289	254	187	200
Total	340	370	327	263	303
Seafood	38	45	34	38	35
Dairy					
Milk, cream and milk products ^b	12	11	12	11	10
Butter and other milk fat	1	1	1	0	1
Cheese and curd	7	6	8	8	7
Total	20	18	21	19	17
Fruit and vegetables	7	8	6	5	7
Oil and fat	3	3	2	4	3
Flour mill and cereal food	5	6	4	5	6
Other food					
Chocolate and chocolate confectionery	10	11	11	12	10
Sugar confectionary	3	5	3	4	6
Food nec	33	61	66	54	57
Total	45	77	81	70	73
Beverages and malt					
Nonalcoholic	0	0	1	0	0
Alcoholic	15	17	12	9	12
Total	15	18	13	10	12
Total food and beverage					
Minimally transformed	1 095	1 128	946	848	812
Substantially transformed	473	544	490	414	455
Total	1 568	1 672	1 436	1 262	1 267

^a Based on state of departure. ^b Excluding butter and cheese.

Source: ABS, Air freight cargo statistics, unpublished.

5.10 Australian air freight exports of food, by level of transformation and state, 2004-05 ^a

	NSW \$m	Vic \$m	Qld \$m	WA \$m	SA \$m	Tas ^b \$m	NT \$m
Minimally transformed							
Live animals except fish	70	40	6	2	1	0	0
Fish or shellfish							
Fish	33	18	58	4	20	0	0
Shellfish	31	184	35	129	32	0	0
Total	65	201	93	133	52	0	0
Horticulture							
Vegetables	23	0	35	1	0	0	0
Fruit and nuts	31	20	21	14	1	0	0
Total	54	20	56	15	1	0	0
Oilseeds	1	0	1	0	0	0	0
Substantially transformed							
Meat							
Beef	33	20	40	10	1	0	0
Other meat and offal	42	75	22	48	12	0	0
Total	75	96	62	57	12	0	0
Seafood	2	9	18	2	3	0	0
Dairy							
Milk, cream and milk products ^c	3	5	1	1	0	0	0
Butter and other milk fat	0	0	0	0	0	0	0
Cheese and curd	1	5	0	0	0	0	0
Total	4	10	1	1	0	0	0
Fruit and vegetables	3	1	1	0	1	0	0
Oil and fat	2	1	0	0	0	0	0
Flour mill and cereal food	2	1	2	0	0	0	0
Other food							
Chocolate and chocolate confectionery	3	7	0	0	0	0	0
Sugar confectionery	3	1	1	1	0	0	0
Food nec	29	11	10	1	1	0	0
Total	35	19	11	1	1	0	0
Beverages and malt							
Nonalcoholic	0	0	0	0	0	0	0
Alcoholic	5	3	1	0	2	0	0
Total	5	3	1	0	2	0	0
Total food and beverage							
Minimally transformed	190	261	155	150	55	0	1
Substantially transformed	130	141	97	62	20	0	0
Total	320	402	252	212	74	0	1

^a Based on state of departure. ^b Virtually all air freight exports of Tasmanian origin are recorded as exports from mainland Australian airports. ^c Excluding butter and cheese.

Source: ABS, Air freight cargo statistics, unpublished.

5.11 Australian food exports to APEC member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	221	201	284	305	364	452	289	302
Fish or shellfish	466	511	629	764	856	758	664	567
Horticulture								
Vegetables	174	188	171	177	180	163	119	114
Fruit and nuts	311	319	343	393	467	431	305	336
Total	485	507	514	570	647	594	424	451
Grains a	1 662	1 801	1 536	2 475	2 551	2 212	2 231	2 912
Oilseeds	254	445	705	423	489	325	311	286
Food nec	21	59	39	38	31	46	25	24
Substantially and elaborately transformed								
Meat								
Meat processing	3 000	3 335	3 903	5 042	5 381	4 916	5 078	6 193
Poultry processing	8	10	7	8	8	5	6	7
Bacon, ham and smallgoods	47	36	67	52	64	68	72	89
Total	3 055	3 382	3 977	5 101	5 454	4 989	5 155	6 289
Seafood	680	658	850	873	739	647	563	566
Dairy								
Milk and cream processing	695	796	840	1 128	1 170	864	798	801
Ice cream	46	39	35	33	31	26	33	39
Other dairy products	641	758	793	905	1 078	838	832	962
Total	1 382	1 594	1 668	2 065	2 280	1 729	1 663	1 802
Fruit and vegetables	253	280	278	300	344	323	308	330
Oil and fat	139	112	101	106	129	121	122	125
Flour mill and cereal food								
Flour mill products	124	164	171	174	202	197	181	198
Cereal food and baking mix	113	110	135	147	116	126	127	137
Total	237	274	306	321	318	323	309	334
Bakery products								
Bread, cake and pastry	10	9	17	12	6	2	3	3
Biscuit	68	66	55	56	70	67	72	86
Total	77	75	73	68	76	70	75	89
Other food								
Sugar a	1 534	1 206	1 002	1 125	1 378	1 155	1 113	1 322
Confectionery	148	161	207	239	261	260	234	214
Food nec	584	596	650	730	681	645	670	704
Total	2 266	1 963	1 858	2 095	2 320	2 060	2 017	2 239
Beverages and malt								
Soft drink, cordial and syrup	23	19	20	37	24	41	31	30
Beer and malt	154	146	155	180	216	196	173	167
Wine	358	418	547	764	971	1 220	1 307	1 370
Spirit	27	30	45	64	71	59	43	41
Total	561	613	767	1 046	1 283	1 515	1 554	1 608
Total food and beverage								
Minimally transformed	3 109	3 524	3 706	4 574	4 938	4 386	3 944	4 541
Substantially transformed	8 450	8 735	9 644	11 720	12 658	11 483	11 493	13 113
Elaborately transformed	201	215	234	255	284	295	273	268
Total	11 759	12 475	13 584	16 549	17 881	16 164	15 710	17 922

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.12 Australian food exports to ASEAN member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	204	190	270	284	333	407	256	277
Fish or shellfish	15	10	12	15	15	11	9	12
Horticulture								
Vegetables	86	87	78	87	96	86	56	45
Fruit and nuts	142	113	119	160	174	157	105	116
Total	228	200	197	247	270	243	161	161
Grains a	897	751	758	1 022	996	772	947	995
Oilseeds	2	4	21	11	14	2	4	5
Food nec	3	4	7	4	5	7	1	3
Substantially and elaborately transformed								
Meat								
Meat processing	203	184	305	348	398	375	299	259
Poultry processing	1	1	2	1	3	1	1	2
Bacon, ham and smallgoods	1	1	1	2	3	3	3	3
Total	204	186	308	351	404	379	303	264
Seafood	41	44	57	65	77	53	44	46
Dairy								
Milk and cream processing	471	563	546	761	777	557	514	538
Ice cream	8	7	3	2	2	3	6	5
Other dairy products	169	180	196	201	224	176	165	212
Total	647	750	746	965	1 003	736	684	755
Fruit and vegetables	40	37	39	46	57	47	47	47
Oil and fat	23	15	15	13	14	16	23	22
Flour mill and cereal food								
Flour mill products	24	43	49	55	66	62	66	84
Cereal food and baking mix	27	16	25	24	15	16	12	14
Total	51	59	74	79	81	78	78	98
Bakery products								
Bread, cake and pastry	1	1	3	2	1	0	0	0
Biscuit	4	3	2	3	8	10	6	4
Total	6	5	5	5	9	10	6	4
Other food								
Sugar a	367	297	263	315	420	317	329	474
Confectionery	26	29	30	40	50	58	48	44
Food nec	78	83	113	144	128	113	109	132
Total	471	409	406	498	597	488	487	649
Beverages and malt								
Soft drink, cordial and syrup	4	3	4	4	4	3	3	3
Beer and malt	63	64	65	79	97	94	79	75
Wine	17	24	31	39	47	51	61	72
Spirit	5	3	6	12	14	14	7	13
Total	88	93	107	134	162	161	149	163
Total food and beverage								
Minimally transformed	1 349	1 160	1 265	1 583	1 633	1 443	1 377	1 453
Substantially transformed	1 542	1 570	1 723	2 113	2 352	1 908	1 770	2 002
Elaborately transformed	28	29	33	42	52	61	50	46
Total	2 919	2 760	3 021	3 739	4 037	3 411	3 197	3 500

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.13 Australian food exports to NAFTA member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	1	1	2	5	9	14	3	3
Fish or shellfish	12	19	18	26	30	24	16	14
Horticulture								
Vegetables	0	0	0	0	0	0	0	0
Fruit and nuts	43	42	51	46	49	61	53	56
Total	43	42	51	46	49	61	54	57
Grains a	6	0	1	1	1	0	0	1
Oilseeds	34	86	86	76	82	35	8	7
Food nec	0	6	5	8	4	3	2	4
Substantially and elaborately transformed								
Meat								
Meat processing	903	1 118	1 379	2 094	2 575	2 045	1 856	1 968
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	1	1	2	2	0	1
Total	903	1 118	1 380	2 095	2 577	2 047	1 856	1 969
Seafood	88	112	126	105	105	132	113	117
Dairy								
Milk and cream processing	18	18	12	57	28	20	34	31
Ice cream	0	0	0	0	0	0	0	0
Other dairy products	96	152	138	173	213	177	157	153
Total	114	170	150	230	242	197	191	184
Fruit and vegetables	68	82	74	69	65	52	52	56
Oil and fat	3	2	2	3	3	5	1	5
Flour mill and cereal food								
Flour mill products	36	59	64	61	61	52	45	41
Cereal food and baking mix	3	3	2	2	3	4	3	4
Total	39	61	66	62	64	56	48	46
Bakery products								
Bread, cake and pastry	0	0	0	0	0	0	0	0
Biscuit	3	2	3	2	5	5	6	6
Total	3	2	3	2	5	5	6	6
Other food								
Sugar a	370	245	159	233	246	159	170	168
Confectionery	2	3	12	12	12	8	9	11
Food nec	29	34	46	60	34	36	43	26
Total	401	282	217	306	293	203	222	205
Beverages and malt								
Soft drink, cordial and syrup	1	0	1	2	0	1	0	0
Beer and malt	1	1	1	1	1	0	0	0
Wine	238	289	403	594	780	1 010	1 071	1 107
Spirit	0	0	1	1	7	2	1	1
Total	241	290	406	598	788	1 013	1 073	1 109
Total food and beverage								
Minimally transformed	95	154	162	162	175	138	83	85
Substantially transformed	1 855	2 116	2 407	3 457	4 125	3 696	3 547	3 682
Elaborately transformed	5	5	15	15	18	14	15	14
Total	1 955	2 275	2 585	3 633	4 318	3 847	3 645	3 782

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.14 Australian food exports to EU member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	0	0	0	1	1	0	1	0
Fish or shellfish	4	6	8	6	7	11	9	12
Horticulture								
Vegetables	22	18	9	13	23	21	20	16
Fruit and nuts	20	18	20	28	23	22	21	31
Total	42	36	29	42	46	42	42	47
Grains a	104	49	121	159	178	67	124	121
Oilseeds	56	147	21	141	43	12	59	19
Food nec	8	9	7	6	7	8	5	8
Substantially and elaborately transformed								
Meat								
Meat processing	239	243	210	251	248	206	228	239
Poultry processing	0	1	1	1	1	0	0	0
Bacon, ham and smallgoods	9	18	14	5	3	1	0	2
Total	248	261	225	258	253	207	228	241
Seafood	19	38	35	42	29	40	57	54
Dairy								
Milk and cream processing	6	3	7	5	3	4	10	23
Ice cream	0	0	0	0	0	0	0	0
Other dairy products	80	103	136	185	89	110	98	109
Total	86	107	143	190	92	114	108	132
Fruit and vegetables	78	77	69	73	81	92	87	89
Oil and fat	2	3	4	4	4	2	3	4
Flour mill and cereal food								
Flour mill products	0	1	1	1	1	1	1	1
Cereal food and baking mix	5	4	4	7	5	5	4	5
Total	5	4	5	8	6	6	5	6
Bakery products								
Bread, cake and pastry	1	0	0	1	0	0	0	0
Biscuit	2	1	1	2	3	7	15	9
Total	3	1	1	2	4	7	15	9
Other food								
Sugar a	10	1	0	2	1	2	3	4
Confectionery	2	1	4	1	1	2	5	8
Food nec	36	31	30	51	40	42	33	36
Total	48	34	34	53	42	46	41	48
Beverages and malt								
Soft drink, cordial and syrup	1	1	1	1	0	1	2	1
Beer and malt	1	2	3	2	7	0	0	0
Wine	477	612	782	936	1 079	1 143	1 134	1 289
Spirit	0	2	4	4	4	3	3	2
Total	479	616	789	943	1 090	1 147	1 139	1 292
Total food and beverage								
Minimally transformed	215	248	186	354	281	141	239	207
Substantially transformed	963	1 140	1 301	1 569	1 595	1 652	1 663	1 859
Elaborately transformed	5	2	3	4	6	9	20	17
Total	1 182	1 390	1 490	1 927	1 882	1 802	1 923	2 082

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.15 Australian total food exports, by selected destination

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Canada	400	550	644	595	411	487
China	672	689	1 081	751	705	1 302
Chinese Taipei	724	742	706	643	596	633
Egypt	259	301	243	155	74	59
Germany	142	239	123	116	151	141
Hong Kong, China	704	886	897	759	713	699
Indonesia	700	1 005	1 150	1 117	1 123	1 254
Japan	4 174	4 870	4 823	4 425	4 683	5 444
Korea, Rep. Of	852	1 012	1 156	1 193	1 172	1 449
Malaysia	780	967	1 083	815	849	960
New Zealand	701	830	929	1 009	928	1 002
Philippines	635	696	636	485	369	336
Saudi Arabia	275	547	866	570	790	547
Singapore	518	583	662	596	509	554
Thailand	277	337	350	288	269	295
United Arab Emirates	262	325	300	233	237	259
United Kingdom	796	971	1 113	1 103	1 098	1 200
United States	2 054	2 890	3 451	3 087	3 115	3 207

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

5.16 Australian food exports to selected countries

	Japan		United States		United Kingdom	
	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m
Minimally transformed						
Live animals except fish	15	19	1	2	0	0
Fish or shellfish	330	225	16	14	1	1
Horticulture						
Vegetables	28	36	0	0	2	2
Fruit and nuts	26	24	45	49	12	13
Total	54	60	46	49	14	14
Grains a	535	550	0	1	1	4
Oilseeds	284	245	7	6	3	3
Food nec	16	13	1	4	1	2
Substantially and elaborately transformed						
Meat						
Meat processing	2 118	2 932	1 716	1 842	132	119
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	24	22	0	1	0	2
Total	2 142	2 954	1 717	1 843	133	122
Seafood	157	154	110	114	2	2
Dairy						
Milk and cream processing	40	38	22	27	0	0
Ice cream	16	23	0	0	0	0
Other dairy products	337	419	122	121	20	21
Total	393	481	144	148	20	21
Fruit and vegetables	97	101	36	44	33	27
Oil and fat	12	22	1	4	1	1
Flour mill and cereal food						
Flour mill products	33	32	40	37	0	0
Cereal food and baking mix	25	27	3	3	3	4
Total	58	60	43	41	3	5
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	12	8	4	4	14	9
Total	12	8	5	4	14	9
Other food						
Sugar a	185	164	80	39	0	0
Confectionery	51	45	4	6	3	6
Food nec	233	242	30	21	18	22
Total	468	451	114	65	22	28
Beverage and malt						
Soft drink, cordial and syrup	0	1	0	0	1	1
Beer and malt	54	42	0	0	0	0
Wine	37	48	874	867	849	961
Spirit	18	10	0	1	1	1
Total	108	101	875	868	852	962
Total food and beverage						
Minimally transformed	1 235	1 113	71	76	20	23
Substantially transformed	3 419	4 311	3 035	3 123	1 061	1 163
Elaborately transformed	29	20	9	9	17	14
Total	4 683	5 444	3 115	3 207	1 098	1 200

Continued

5.16 Australian food exports to selected countries *continued*

	Hong Kong, China		New Zealand		Chinese Taipei	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed						
Live animals except fish	1	1	1	1	0	0
Fish or shellfish	262	230	1	0	35	37
Horticulture						
Vegetables	8	6	16	16	5	5
Fruit and nuts	82	86	16	23	18	28
Total	91	92	32	39	22	32
Grains a	1	1	79	86	54	72
Oilseeds	0	0	3	3	2	2
Food nec	0	0	1	2	1	0
Substantially and elaborately transformed						
Meat						
Meat processing	41	48	63	70	199	208
Poultry processing	4	4	0	0	0	0
Bacon, ham and smallgoods	1	1	3	3	0	1
Total	46	53	66	74	200	209
Seafood	154	160	5	5	38	31
Dairy						
Milk and cream processing	31	29	15	15	103	91
Ice cream	0	0	9	9	0	0
Other dairy products	27	29	14	19	29	29
Total	59	57	38	43	132	120
Fruit and vegetables	7	8	89	99	5	6
Oil and fat	25	24	34	35	1	1
Flour mill and cereal food						
Flour mill products	5	5	21	18	5	7
Cereal food and baking mix	5	5	74	77	2	2
Total	10	11	94	95	7	9
Bakery products						
Bread, cake and pastry	0	0	3	3	0	0
Biscuit	2	1	45	64	0	0
Total	2	1	47	66	0	0
Other food						
Sugar a	0	0	60	79	48	58
Confectionery	14	13	72	75	12	8
Food nec	23	26	168	171	28	34
Total	37	38	299	325	87	100
Beverage and malt						
Soft drink, cordial and syrup	1	0	25	24	0	0
Beer and malt	1	1	1	0	2	0
Wine	17	20	100	96	8	9
Spirit	1	2	14	9	2	4
Total	20	23	139	129	12	13
Total food and beverage						
Minimally transformed	355	324	116	131	114	144
Substantially transformed	341	359	689	727	469	481
Elaborately transformed	17	16	123	143	12	8
Total	713	699	928	1 002	596	633

Continued

5.16 Australian food exports to selected countries *continued*

	Philippines		China		Malaysia	
	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m
Minimally transformed						
Live animals except fish	30	24	11	0	34	23
Fish or shellfish	0	0	10	49	2	2
Horticulture						
Vegetables	2	3	0	0	23	16
Fruit and nuts	0	0	1	2	35	38
Total	2	3	1	2	58	54
Grains a	37	34	339	878	170	198
Oilseeds	0	1	2	16	2	3
Food nec	0	0	0	0	0	1
Substantially and elaborately transformed						
Meat						
Meat processing	28	20	75	77	62	52
Poultry processing	1	1	1	0	0	0
Bacon, ham and smallgoods	1	1	38	58	0	0
Total	30	22	115	135	62	52
Seafood	0	2	53	53	6	4
Dairy						
Milk and cream processing	142	121	41	29	157	170
Ice cream	3	3	1	1	0	0
Other dairy products	34	46	31	29	30	34
Total	179	169	74	60	187	205
Fruit and vegetables	8	4	4	8	15	16
Oil and fat	2	1	16	4	10	10
Flour mill and cereal food						
Flour mill products	9	9	3	5	8	7
Cereal food and baking mix	2	5	2	0	3	3
Total	11	14	5	6	11	10
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	1	0	1	1	1	1
Total	1	0	1	1	1	1
Other food						
Sugar a	1	0	44	50	237	318
Confectionery	20	15	10	7	7	8
Food nec	16	14	14	23	25	31
Total	36	29	69	80	269	357
Beverage and malt						
Soft drink, cordial and syrup	0	0	0	0	1	0
Beer and malt	26	25	0	0	6	4
Wine	3	3	7	10	15	20
Spirit	3	5	0	0	1	1
Total	33	34	7	10	22	25
Total food and beverage						
Minimally transformed	69	61	363	946	266	281
Substantially transformed	280	261	332	349	575	670
Elaborately transformed	20	14	10	8	7	9
Total	369	336	705	1 302	849	960

Continued

5.16 Australian food exports to selected countries *continued*

	Singapore		Republic of Korea		Saudi Arabia	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed						
Live animals except fish	3	3	2	1	13	0
Fish or shellfish	3	4	0	0	0	0
Horticulture						
Vegetables	24	20	5	4	1	1
Fruit and nuts	36	35	1	1	2	2
Total	60	55	6	5	2	2
Grains a	11	26	314	308	504	284
Oilseeds	0	0	7	8	0	2
Food nec	0	2	5	0	0	0
Substantially and elaborately transformed						
Meat						
Meat processing	139	122	399	600	85	85
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	1	1	0	1	0	0
Total	140	123	400	601	86	85
Seafood	35	36	0	0	0	0
Dairy						
Milk and cream processing	85	111	14	21	17	15
Ice cream	1	2	1	0	0	0
Other dairy products	41	52	71	71	77	84
Total	127	164	85	92	93	99
Fruit and vegetables	9	10	4	4	9	10
Oil and fat	7	8	6	8	0	0
Flour mill and cereal food						
Flour mill products	1	2	3	4	0	0
Cereal food and baking mix	5	5	1	2	1	2
Total	5	7	4	5	1	2
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	2	2	0	0	0	0
Total	3	3	0	0	0	0
Other food						
Sugar a	26	29	255	329	63	47
Confectionery	11	12	18	10	7	5
Food nec	25	22	24	23	9	11
Total	62	63	296	362	80	62
Beverage and malt						
Soft drink, cordial and syrup	1	2	0	0	0	0
Beer and malt	8	8	34	45	0	0
Wine	33	37	6	7	0	0
Spirit	3	5	1	2	0	0
Total	45	52	41	54	0	0
Total food and beverage						
Minimally transformed	77	90	335	323	520	289
Substantially transformed	419	450	824	1 117	263	253
Elaborately transformed	13	14	13	10	7	5
Total	509	554	1 172	1 449	790	547

Continued

5.16 Australian food exports to selected countries *continued*

	Canada		Thailand		Egypt	
	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m
Minimally transformed						
Live animals except fish	1	1	1	0	2	4
Fish or shellfish	0	0	2	5	0	0
Horticulture						
Vegetables	0	0	2	1	0	0
Fruit and nuts	8	7	6	10	0	0
Total	8	7	8	11	0	0
Grains a	0	0	102	110	3	6
Oilseeds	1	1	1	1	0	0
Food nec	1	0	0	0	0	0
Substantially and elaborately transformed						
Meat						
Meat processing	70	73	11	15	3	2
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	0	0	1	1
Total	70	73	11	15	3	3
Seafood	3	3	2	3	0	0
Dairy						
Milk and cream processing	0	0	49	49	9	5
Ice cream	0	0	0	0	0	0
Other dairy products	3	7	24	25	12	19
Total	3	8	73	74	21	24
Fruit and vegetables	17	12	4	4	31	17
Oil and fat	0	1	1	0	0	0
Flour mill and cereal food						
Flour mill products	0	0	4	6	0	0
Cereal food and baking mix	1	1	1	1	0	0
Total	1	1	5	6	0	0
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	1	2	1	0	0	0
Total	1	2	1	0	0	0
Other food						
Sugar a	89	129	3	3	0	0
Confectionery	5	5	5	5	0	1
Food nec	13	6	14	20	13	4
Total	108	139	22	28	14	4
Beverage and malt						
Soft drink, cordial and syrup	0	0	0	0	0	0
Beer and malt	0	0	30	27	0	0
Wine	196	239	6	9	0	0
Spirit	1	0	0	0	0	0
Total	197	239	36	36	0	0
Total food and beverage						
Minimally transformed	11	9	114	127	5	10
Substantially transformed	393	472	150	163	69	48
Elaborately transformed	6	5	5	4	0	1
Total	411	487	269	295	74	59

Continued

5.16 Australian food exports to selected countries *continued*

	Indonesia		Germany		United Arab Emirates	
	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m
Minimally transformed						
Live animals except fish	178	215	0	0	17	12
Fish or shellfish	1	1	1	1	0	1
Horticulture						
Vegetables	2	4	6	3	9	10
Fruit and nuts	27	31	1	2	11	16
Total	30	35	8	5	20	25
Grains a						
Oilseeds	0	0	19	2	0	0
Food nec	0	0	4	6	1	0
Substantially and elaborately transformed						
Meat						
Meat processing	56	48	18	28	57	62
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	2	2	0	0	1	1
Total	58	50	18	28	58	63
Seafood						
Dairy	1	1	3	2	0	0
Dairy						
Milk and cream processing	80	87	2	3	15	15
Ice cream	0	0	0	0	0	0
Other dairy products	36	53	7	7	25	28
Total	116	140	9	11	40	43
Fruit and vegetables						
Oil and fat	10	12	14	16	5	8
Flour mill and cereal food	3	3	0	0	1	1
Flour mill and cereal food						
Flour mill products	45	60	0	0	0	1
Cereal food and baking mix	1	1	0	0	1	1
Total	46	61	0	0	1	2
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	0	0	0	0	0	0
Total	0	0	0	0	0	0
Other food						
Sugar a	66	126	0	0	0	0
Confectionery	4	3	0	0	6	5
Food nec	29	45	3	3	5	9
Total	99	174	3	3	11	14
Beverage and malt						
Soft drink, cordial and syrup	0	0	0	0	0	0
Beer and malt	9	11	0	0	0	0
Wine	4	4	71	67	5	6
Spirit	0	2	0	0	0	0
Total	13	16	71	67	5	6
Total food and beverage						
Minimally transformed	775	797	32	13	116	121
Substantially transformed	344	455	119	127	115	134
Elaborately transformed	3	3	0	0	6	5
Total	1 123	1 254	151	141	237	259

a Includes ABARE estimate where ABS confidentiality restrictions apply.
Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.1 Australian food imports, by level of transformation

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	13	1	1	0	1	0	0	1
Fish or shellfish	30	31	35	37	37	41	46	46
Horticulture								
Vegetables	19	24	27	26	24	27	34	32
Fruit and nuts	90	94	99	110	115	115	135	158
Total	109	118	126	136	139	142	169	189
Grains	3	1	1	0	0	65	1	1
Oilseeds	40	29	23	24	21	61	50	25
Food nec	186	172	155	114	59	72	45	44
Substantially and elaborately transformed								
Meat								
Meat processing	42	51	133	105	206	172	224	345
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	33	28	29	31	36	39	40	41
Total	75	79	161	136	242	211	264	387
Seafood	666	720	751	843	865	923	868	928
Dairy								
Milk and cream processing	25	33	29	37	29	34	35	45
Ice cream	15	33	17	21	15	22	22	29
Other dairy products	188	207	230	261	277	275	272	310
Total	228	273	276	319	321	331	330	384
Fruit and vegetables	620	715	719	753	815	899	914	999
Oil and fat	253	288	271	275	280	357	345	339
Flour mill and cereal food								
Flour mill products	55	48	79	77	22	41	59	73
Cereal food and baking mix	141	149	139	196	226	236	260	285
Total	196	197	219	273	248	277	319	358
Bakery products								
Bread, cake and pastry	63	76	81	92	57	29	39	47
Biscuit	58	62	80	82	106	152	160	177
Total	120	138	161	174	163	180	199	224
Other food								
Sugar	7	9	11	12	16	20	15	18
Confectionery	215	208	213	224	222	245	261	307
Food nec	618	729	757	858	923	1 033	961	1 036
Total	841	945	981	1 094	1 160	1 298	1 237	1 361
Beverage and malt								
Soft drink, cordial and syrup	286	276	330	405	421	461	502	537
Beer and malt	32	44	42	52	66	78	91	99
Wine	94	103	114	92	116	139	158	200
Spirit	216	232	252	330	351	327	345	382
Total	627	654	737	880	954	1 005	1 096	1 218
Total food and beverage								
Minimally transformed	380	352	342	312	258	382	311	306
Substantially transformed	3 507	3 893	4 140	4 604	4 876	5 278	5 355	5 970
Elaborately transformed	117	117	136	143	172	204	217	228
Total	4 005	4 361	4 618	5 059	5 306	5 863	5 883	6 503

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.2 Australian food imports from APEC member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	0	0	1	0	0	0	0	0
Fish or shellfish	29	30	34	36	37	41	42	44
Horticulture								
Vegetables	15	19	23	23	22	25	31	28
Fruit and nuts	74	73	78	81	96	93	113	138
Total	89	93	102	104	118	118	145	167
Grains	3	1	1	0	0	11	0	0
Oilseeds	34	22	22	19	17	36	32	16
Food nec	96	88	70	52	33	33	32	45
Substantially and elaborately transformed								
Meat								
Meat processing	41	49	72	64	118	107	109	224
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	26	22	22	25	29	30	31	30
Total	68	71	94	88	148	138	140	254
Seafood	502	524	542	592	588	616	579	603
Dairy								
Milk and cream processing	25	32	27	36	28	33	34	43
Ice cream	11	18	12	16	12	20	19	22
Other dairy products	116	134	155	183	190	186	179	206
Total	151	184	195	235	230	239	232	271
Fruit and vegetables	333	357	361	396	409	458	452	462
Oil and fat	138	153	135	116	128	152	153	137
Flour mill and cereal food								
Flour mill products	50	43	66	70	16	30	50	58
Cereal food and baking mix	103	105	95	118	142	149	170	191
Total	153	148	161	188	158	179	220	250
Bakery products								
Bread, cake and pastry	40	54	51	63	40	22	31	36
Biscuit	29	34	49	50	66	89	85	99
Total	69	89	100	113	106	111	117	135
Other food								
Sugar	6	6	8	8	10	13	10	12
Confectionery	88	87	92	108	102	112	113	138
Food nec	267	311	318	379	581	627	587	638
Total	361	404	418	496	694	751	711	788
Beverage and malt								
Soft drink, cordial and syrup	23	28	54	75	74	90	83	93
Beer and malt	9	10	11	14	19	22	30	39
Wine	17	18	25	22	37	54	59	85
Spirit	79	92	105	144	148	130	145	162
Total	127	148	195	256	278	296	317	378
Total food and beverage								
Minimally transformed	251	234	229	212	205	239	252	272
Substantially transformed	1 838	2 011	2 115	2 393	2 641	2 818	2 809	3 152
Elaborately transformed	64	67	85	87	98	120	111	126
Total	2 153	2 311	2 428	2 692	2 944	3 178	3 172	3 550

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.3 Australian food imports from ASEAN member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	0	0	0	0	0	0	0	0
Fish or shellfish	1	1	1	1	1	1	1	1
Horticulture								
Vegetables	2	3	2	3	3	3	3	4
Fruit and nuts	2	2	2	2	3	2	3	5
Total	4	5	4	5	6	6	6	9
Grains	0	0	0	0	0	0	0	0
Oilseeds	0	0	1	1	1	0	0	0
Food nec	23	29	13	14	8	7	7	9
Substantially and elaborately transformed								
Meat								
Meat processing	0	0	0	0	0	0	0	0
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Seafood	276	285	293	317	310	309	281	298
Dairy								
Milk and cream processing	0	0	0	0	0	0	2	1
Ice cream	0	0	2	4	1	0	2	1
Other dairy products	0	0	0	0	0	0	0	1
Total	0	0	3	4	1	0	4	3
Fruit and vegetables	77	85	84	82	79	92	75	80
Oil and fat	121	134	115	100	110	123	123	119
Flour mill and cereal food								
Flour mill products	1	2	2	2	2	7	7	6
Cereal food and baking mix	54	52	48	61	53	62	82	116
Total	55	54	50	63	55	69	89	122
Bakery products								
Bread, cake and pastry	5	6	7	9	6	5	4	5
Biscuit	8	14	25	25	24	28	24	25
Total	13	20	32	33	30	33	28	30
Other food								
Sugar	2	2	3	2	3	5	3	2
Confectionery	11	13	15	14	15	20	19	18
Food nec	149	174	157	147	202	240	216	225
Total	162	188	174	163	220	265	238	245
Beverage and malt								
Soft drink, cordial and syrup	3	3	3	4	8	6	7	7
Beer and malt	0	1	1	1	1	2	3	5
Wine	0	0	0	0	0	0	1	0
Spirit	0	0	0	0	0	0	0	0
Total	3	3	4	5	9	8	11	12
Total food and beverage								
Minimally transformed	28	35	18	20	16	14	14	19
Substantially transformed	699	755	729	742	790	869	825	884
Elaborately transformed	8	14	26	25	24	29	25	26
Total	735	803	773	787	829	912	863	928

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.4 Australian food imports from NAFTA member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	0	0	1	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	0	0	0
Horticulture								
Vegetables	5	6	8	4	4	5	6	3
Fruit and nuts	29	26	25	31	34	35	46	60
Total	34	31	33	35	38	40	52	64
Grains	2	0	0	0	0	11	0	0
Oilseeds	28	13	10	5	5	21	19	5
Food nec	2	1	2	2	2	3	1	2
Substantially and elaborately transformed								
Meat								
Meat processing	31	41	61	57	112	99	95	194
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	11	12	12	12	14	13	12	14
Total	43	53	73	69	126	112	107	207
Seafood	63	66	62	69	51	62	47	52
Dairy								
Milk and cream processing	0	0	0	0	0	0	0	1
Ice cream	0	1	1	1	1	1	2	2
Other dairy products	5	4	3	6	6	6	4	5
Total	5	5	4	7	7	8	7	8
Fruit and vegetables	115	127	128	131	114	118	118	106
Oil and fat	5	6	7	4	4	5	16	3
Flour mill and cereal food								
Flour mill products	42	34	58	59	5	6	26	35
Cereal food and baking mix	13	12	10	13	27	18	25	7
Total	55	46	68	72	32	23	51	42
Bakery products								
Bread, cake and pastry	15	26	23	26	8	2	2	2
Biscuit	3	4	4	6	10	8	11	14
Total	18	30	26	32	18	10	12	17
Other food								
Sugar	2	2	2	3	4	2	2	2
Confectionery	51	47	47	42	21	16	14	19
Food nec	33	39	40	45	91	98	111	122
Total	86	88	88	89	116	115	126	142
Beverage and malt								
Soft drink, cordial and syrup	77	13	13	13	19	39	13	12
Beer and malt	7	8	8	10	13	16	22	25
Wine	1	1	1	1	1	1	4	2
Spirit	69	68	71	95	107	115	123	142
Total	154	89	93	118	140	171	162	182
Total food and beverage								
Minimally transformed	66	46	47	42	45	74	73	71
Substantially transformed	510	480	524	569	593	612	632	743
Elaborately transformed	34	28	26	23	15	13	14	17
Total	611	555	596	634	653	699	719	831

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.5 Australian food imports from EU member countries

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed								
Live animals except fish	0	0	0	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	0	0	1
Horticulture								
Vegetables	1	1	1	1	1	1	1	1
Fruit and nuts	7	9	13	9	8	10	9	7
Total	8	10	14	10	9	11	10	8
Grains	0	0	0	0	0	53	0	0
Oilseeds	0	1	0	0	0	0	0	0
Food nec	2	2	2	3	3	3	3	4
Substantially and elaborately transformed								
Meat								
Meat processing	0	2	60	41	88	65	115	121
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	6	5	6	5	5	7	6	7
Total	6	7	66	46	93	72	121	128
Seafood	33	35	36	39	38	43	40	45
Dairy								
Milk and cream processing	1	1	1	2	2	1	1	1
Ice cream	4	15	4	5	3	2	3	6
Other dairy products	60	59	62	65	69	69	75	81
Total	65	75	68	71	74	72	79	89
Fruit and vegetables	124	154	153	150	178	183	195	200
Oil and fat	79	95	110	132	115	157	134	146
Flour mill and cereal food								
Flour mill products	4	4	12	6	3	7	6	10
Cereal food and baking mix	30	32	30	63	68	67	61	67
Total	34	36	42	69	71	75	67	76
Bakery products								
Bread, cake and pastry	20	19	26	26	15	6	7	9
Biscuit	24	23	25	25	33	52	60	55
Total	44	43	52	51	48	58	67	64
Other food								
Sugar	1	2	2	2	2	3	2	3
Confectionery	108	97	95	90	90	100	117	134
Food nec	143	163	188	214	223	222	202	236
Total	252	262	285	305	316	325	320	373
Beverage and malt								
Soft drink, cordial and syrup	197	246	157	48	265	317	376	393
Beer and malt	23	33	31	38	46	56	60	58
Wine	73	81	86	68	76	83	98	112
Spirit	119	131	129	170	188	185	183	207
Total	413	491	403	323	575	641	717	771
Total food and beverage								
Minimally transformed	10	13	16	13	12	67	14	13
Substantially transformed	1 006	1 160	1 177	1 149	1 454	1 560	1 657	1 822
Elaborately transformed	43	37	38	39	53	65	84	70
Total	1 059	1 211	1 231	1 201	1 520	1 693	1 754	1 906

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.6 Australian total food imports, by selected destination

	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Brazil	194	345	130	79	63	91
Canada	112	109	158	148	157	209
China	131	161	229	272	296	372
France	117	102	115	121	149	164
India	64	80	96	110	108	116
Indonesia	89	110	108	130	106	115
Ireland	147	54	274	330	395	400
Italy	215	231	240	287	289	326
Malaysia	160	159	182	204	196	212
Netherlands	101	98	118	112	91	106
New Zealand	704	870	977	1 053	1 089	1 199
Papua New Guinea	56	39	29	28	30	31
Singapore	127	105	129	135	157	169
Spain	108	107	101	137	127	127
Thailand	368	386	378	406	374	396
United Kingdom	225	268	294	347	255	286
United States	455	489	455	497	511	569
Viet Nam	109	108	105	153	168	218

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

6.7 Australian food imports from selected countries

	New Zealand		United States		Thailand	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	40	43	0	0	0	0
Horticulture						
Vegetables	14	13	5	3	3	4
Fruit and nuts	51	58	46	60	2	4
Total	65	71	51	62	5	8
Grains	0	0	0	0	0	0
Oilseeds	1	1	16	1	0	0
Food nec	0	0	1	1	0	0
Substantially and elaborately transformed						
Meat						
Meat processing	12	29	0	49	0	0
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	16	15	12	14	0	0
Total	29	44	12	63	0	0
Seafood	129	112	27	30	221	236
Dairy						
Milk and cream processing	30	41	0	0	0	0
Ice cream	11	11	1	1	2	1
Other dairy products	172	196	4	5	0	0
Total	213	247	5	6	2	1
Fruit and vegetables	167	154	105	90	34	34
Oil and fat	7	5	4	3	1	1
Flour mill and cereal food						
Flour mill products	7	8	25	34	6	6
Cereal food and baking mix	30	32	24	6	48	53
Total	37	40	49	40	54	59
Bakery products						
Bread, Cake and pastry	20	22	2	2	0	0
Biscuit	30	35	10	14	11	10
Total	50	57	12	16	11	10
Other food						
Sugar	1	3	2	2	0	0
Confectionery	55	66	12	16	0	1
Food nec	157	186	99	104	43	41
Total	213	255	112	122	44	42
Beverage and malt						
Soft drink, cordial and syrup	55	63	10	9	0	1
Beer and malt	4	7	2	2	1	2
Wine	51	81	4	2	0	0
Spirit	28	21	102	123	0	0
Total	138	172	118	136	2	3
Total food and beverage						
Minimally transformed	106	114	68	64	6	8
Substantially transformed	932	1 027	431	489	357	377
Elaborately transformed	50	58	13	16	11	10
Total	1 089	1 199	511	569	374	396

Continued

6.7 Australian food imports from selected countries *continued*

	Ireland		Italy		United Kingdom	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	1
Horticulture						
Vegetables	0	0	0	0	0	0
Fruit and nuts	0	0	5	5	0	0
Total	0	0	5	5	0	0
Grains	0	0	0	0	0	0
Oilseeds	0	0	0	0	0	0
Food nec	0	1	1	1	1	1
Substantially and elaborately transformed						
Meat						
Meat processing	0	0	0	0	0	0
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	0	0	0	0
Total	0	0	0	0	0	0
Seafood	0	0	7	6	5	7
Dairy						
Milk and cream processing	0	0	0	0	0	0
Ice cream	0	0	0	0	0	0
Other dairy products	0	0	23	22	2	2
Total	0	0	23	23	2	2
Fruit and vegetables	0	0	67	70	6	7
Oil and fat	0	0	50	66	1	1
Flour mill and cereal food						
Flour mill products	0	0	0	0	0	0
Cereal food and baking mix	21	13	24	26	6	10
Total	21	13	24	26	6	11
Bakery products						
Bread, cake and pastry	0	0	5	6	0	1
Biscuit	0	0	3	4	19	18
Total	0	0	7	9	19	19
Other food						
Sugar	0	0	0	0	1	1
Confectionery	0	0	18	24	19	22
Food nec	1	4	46	49	63	67
Total	2	4	64	73	84	90
Beverage and malt						
Soft drink, cordial and syrup	332	339	14	15	2	4
Beer and malt	0	0	2	3	12	11
Wine	0	0	22	26	0	1
Spirit	39	43	3	4	116	130
Total	371	382	41	47	131	146
Total food and beverage						
Minimally transformed	0	1	6	6	1	2
Substantially transformed	394	399	278	314	229	260
Elaborately transformed	0	0	6	6	25	24
Total	395	400	289	326	255	286

Continued

6.7 Australian food imports from selected countries *continued*

	Malaysia		Singapore		China	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	0
Horticulture						
Vegetables	0	0	0	0	8	8
Fruit and nuts	0	0	0	0	12	14
Total	0	0	0	0	20	22
Grains	0	0	0	0	0	0
Oilseeds	0	0	0	0	12	10
Food nec	1	1	0	1	4	5
Substantially and elaborately transformed						
Meat						
Meat processing	0	0	0	0	0	0
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	0	0	1	1
Total	0	0	0	0	1	1
Seafood	26	27	7	6	69	90
Dairy						
Milk and cream processing	0	0	2	1	0	0
Ice cream	0	0	0	0	4	7
Other dairy products	0	0	0	0	0	0
Total	0	0	2	1	4	7
Fruit and vegetables	2	2	9	9	77	106
Oil and fat	103	101	18	17	3	4
Flour mill and cereal food						
Flour mill products	2	1	0	0	7	7
Cereal food and baking mix	3	4	26	50	17	17
Total	5	5	26	50	23	24
Bakery products						
Bread, cake and pastry	1	2	3	3	3	5
Biscuit	5	7	1	2	15	18
Total	7	9	4	5	18	23
Other food						
Sugar	2	1	0	0	3	5
Confectionery	1	1	10	11	21	30
Food nec	45	61	77	66	35	40
Total	48	64	87	77	60	75
Beverage and malt						
Soft drink, cordial and syrup	4	3	1	1	3	5
Beer and malt	0	0	1	2	0	0
Wine	0	0	1	0	0	0
Spirit	0	0	0	0	1	1
Total	4	4	3	4	5	6
Total food and beverage						
Minimally transformed	1	1	0	1	36	38
Substantially transformed	189	204	155	167	245	316
Elaborately transformed	5	7	1	2	15	18
Total	196	212	157	169	296	372

Continued

6.7 Australian food imports from selected countries *continued*

	Indonesia		France		Spain	
	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	0
Horticulture						
Vegetables	0	0	0	0	0	0
Fruit and nuts	0	0	2	0	1	0
Total	0	0	2	0	1	0
Grains	0	0	0	0	0	0
Oilseeds	0	0	0	0	0	0
Food nec	4	7	0	0	0	0
Substantially and elaborately transformed						
Meat						
Meat processing	0	0	0	0	0	0
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	0	1	0	0
Total	0	0	0	1	0	0
Seafood	25	26	0	0	3	2
Dairy						
Milk and cream processing	0	0	0	0	0	0
Ice cream	0	0	1	1	1	4
Other dairy products	0	0	8	8	0	0
Total	0	0	10	9	1	4
Fruit and vegetables	8	10	18	18	28	27
Oil and fat	0	1	0	0	67	64
Flour mill and cereal food						
Flour mill products	0	0	1	2	0	0
Cereal food and baking mix	5	5	4	6	0	0
Total	5	5	5	8	0	0
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	5	6	3	4	0	0
Total	5	6	3	4	0	0
Other food						
Sugar	0	0	0	1	0	0
Confectionery	8	4	10	9	15	14
Food nec	48	55	14	17	8	12
Total	57	59	24	27	23	26
Beverage and malt						
Soft drink, cordial and syrup	1	1	5	4	0	0
Beer and malt	0	0	0	1	0	0
Wine	0	0	67	76	3	4
Spirit	0	0	14	16	0	0
Total	1	1	86	96	3	4
Total food and beverage						
Minimally transformed	5	7	2	0	1	1
Substantially transformed	95	102	139	159	125	125
Elaborately transformed	6	6	7	5	0	1
Total	106	115	149	164	127	127

Continued

6.7 Australian food imports from selected countries *continued*

	Canada		Viet Nam		Brazil	
	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m	2003-04 \$m	2004-05 \$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	0
Horticulture						
Vegetables	0	0	0	0	0	0
Fruit and nuts	0	0	0	0	0	0
Total	0	0	0	0	0	0
Grains	0	0	0	0	0	0
Oilseeds	2	1	0	0	0	0
Food nec	0	0	18	18	11	17
Substantially and elaborately transformed						
Meat						
Meat processing	95	145	0	0	0	0
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	0	0	0	0	1	1
Total	95	145	0	0	1	1
Seafood	20	23	85	122	0	0
Dairy						
Milk and cream processing	0	0	0	1	0	0
Ice cream	1	2	0	0	0	0
Other dairy products	0	0	0	0	0	0
Total	2	2	0	1	0	0
Fruit and vegetables	5	8	58	70	36	57
Oil and fat	12	1	0	0	5	2
Flour mill and cereal food						
Flour mill products	1	1	0	0	0	0
Cereal food and baking mix	1	1	1	1	1	0
Total	2	1	1	1	1	0
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	0	0	1	1	1	2
Total	0	0	1	1	1	2
Other food						
Sugar	0	0	0	0	0	0
Confectionery	1	1	0	0	3	3
Food nec	11	18	3	3	6	8
Total	12	19	4	3	9	11
Beverage and malt						
Soft drink, cordial and syrup	3	4	0	0	0	0
Beer and malt	0	0	0	0	0	1
Wine	0	0	0	0	0	0
Spirit	2	4	0	0	0	0
Total	5	7	0	0	0	1
Total food and beverage						
Minimally transformed	2	2	18	18	11	17
Substantially transformed	154	207	148	198	51	73
Elaborately transformed	1	1	1	1	1	2
Total	157	209	168	218	63	91

Continued

6.7 Australian food imports from selected countries *continued*

	Netherlands		India		Papua New Guinea	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
	\$m	\$m	\$m	\$m	\$m	\$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	0	0	0	0	0	0
Horticulture						
Vegetables	0	1	0	0	0	0
Fruit and nuts	0	0	0	0	0	0
Total	0	1	0	0	0	0
Grains	0	0	0	0	0	0
Oilseeds	0	0	6	6	0	0
Food nec	0	0	6	6	16	24
Substantially and elaborately transformed						
Meat						
Meat processing	0	0	0	0	0	0
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	5	5	0	0	0	0
Total	5	5	0	0	0	0
Seafood	1	2	38	34	4	4
Dairy						
Milk and cream processing	0	1	0	0	0	0
Ice cream	0	0	0	0	0	0
Other dairy products	8	8	0	0	0	0
Total	9	9	0	0	0	0
Fruit and vegetables	15	16	16	22	0	0
Oil and fat	2	1	2	2	0	0
Flour mill and cereal food						
Flour mill products	2	4	2	2	1	0
Cereal food and baking mix	0	1	5	6	0	2
Total	2	5	6	8	1	2
Bakery products						
Bread, cake and pastry	0	0	0	0	0	0
Biscuit	4	5	2	2	0	0
Total	4	5	2	2	0	0
Other food						
Sugar	0	0	0	0	0	0
Confectionery	9	13	0	1	0	0
Food nec	18	28	31	33	8	2
Total	27	40	32	35	8	2
Beverage and malt						
Soft drink, cordial and syrup	1	1	0	0	0	0
Beer and malt	22	18	0	0	0	0
Wine	0	0	0	0	0	0
Spirit	2	2	0	0	0	0
Total	25	21	0	0	0	0
Total food and beverage						
Minimally transformed	1	1	12	13	17	24
Substantially transformed	85	100	94	101	13	6
Elaborately transformed	4	5	2	2	0	0
Total	91	106	108	116	30	31

Source: ABS, *International Trade*, Australia, cat. no. 5465.0, Canberra.

7.1 Value of world trade in processed food, major exporting countries ^a

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Meat						
Australia	2 685	2 913	3 281	3 240	3 455	6.7
Denmark	3 345	3 335	3 741	3 568	3 961	7.7
France	3 664	3 421	2 926	3 026	3 675	7.2
Netherlands	4 519	4 294	3 933	4 116	4 911	9.4
United States	6 340	7 305	7 239	6 354	7 261	14.9
Other	21 985	22 243	24 606	25 974	30 493	54.1
Total	42 538	43 511	45 727	46 279	53 756	100.0
Dairy						
Australia	1 420	1 573	1 568	1 569	1 349	5.2
France	4 011	3 803	3 709	3 878	4 663	13.9
Germany	4 519	4 093	4 507	3 886	5 327	15.5
Netherlands	3 411	3 118	3 356	3 311	4 358	12.2
New Zealand	2 009	2 125	2 679	2 418	2 769	8.3
Other	11 799	11 883	12 912	12 616	15 313	44.8
Total	27 168	26 595	28 731	27 678	33 780	100.0
Seafood						
Australia	80	94	63	45	74	0.7
China	1 022	1 391	1 428	1 628	1 923	15.4
Denmark	436	397	445	452	533	4.7
Korea, Rep. of	311	312	262	232	203	2.7
Thailand	2 016	2 058	2 012	2 012	2 145	21.3
Other	4 997	4 864	5 109	5 394	6 202	55.2
Total	8 862	9 116	9 319	9 764	11 080	100.0
Horticulture						
Australia	148	138	124	140	177	0.6
China	1 501	1 685	1 869	2 155	2 684	8.2
Italy	1 775	1 552	1 615	1 863	2 143	7.5
Netherlands	2 193	1 885	1 859	2 053	2 453	8.7
United States	2 448	2 378	2 272	2 258	2 252	9.7
Other	15 298	14 207	14 276	15 645	18 907	65.3
Total	23 363	21 845	22 016	24 114	28 615	100.0
Beverages ^c						
Australia	848	991	1 089	1 370	1 646	3.1
France	9 014	8 104	7 600	8 562	10 380	23.0
Germany	1 829	1 512	1 853	2 229	2 824	5.4
Italy	3 249	3 037	3 148	3 669	4 157	9.1
United Kingdom	4 712	4 618	4 661	4 974	5 721	13.0
Other	15 366	15 613	16 856	18 448	21 994	46.4
Total	35 016	33 875	35 207	39 252	46 722	100.0
Sugar and confectionery						
Australia	963	874	910	882	910	3.7
Belgium-Luxembourg	1 665	1 737	1 711	1 859	2 290	7.5
Brazil	2 062	1 359	2 485	2 302	2 442	8.6
France	2 225	2 066	1 905	2 140	2 373	8.6
Germany	2 176	1 874	2 214	2 298	2 785	9.2
Other	13 558	13 897	15 542	15 998	18 418	62.5
Total	22 650	21 807	24 766	25 479	29 217	100.0

Continued

7.1 Value of world trade in processed food, major exporting countries ^a *continued*

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 ^p US\$m	Share ^b %
Animal and vegetable oil						
Argentina	2 347	1 691	1 642	2 096	2 842	8.5
Australia	254	220	203	215	260	0.9
Malaysia	4 911	3 515	3 355	4 837	6 515	18.6
Netherlands	1 719	1 224	1 270	1 632	2 005	6.3
United States	2 012	1 503	1 455	1 978	2 067	7.2
Other	14 165	12 272	12 068	15 413	18 905	58.4
Total	25 408	20 425	19 994	26 170	32 594	100.0
Animal feed ^d						
Argentina	2 049	2 433	2 627	2 790	3 500	12.3
Australia	403	565	483	522	540	2.3
Brazil	1 587	1 716	2 167	2 300	2 713	9.7
Netherlands	1 670	1 670	1 617	1 886	2 144	8.3
United States	3 526	3 975	4 414	4 068	4 109	18.5
Other	9 508	9 680	10 403	11 038	12 491	48.9
Total	18 742	20 039	21 711	22 604	25 498	100.0
Cereal products						
Australia	280	275	289	319	364	1.7
Belgium-Luxembourg	1 447	1 308	1 499	1 651	2 047	8.9
France	1 672	1 540	1 534	1 736	2 177	9.6
Germany	1 570	1 503	1 668	1 914	2 431	10.1
Italy	1 852	1 721	1 854	2 034	2 317	10.9
Other	9 369	9 346	9 937	11 149	13 010	58.8
Total	16 190	15 691	16 780	18 803	22 347	100.0
Other processed food						
Australia	202	232	211	228	300	0.7
Brazil	2 778	2 258	1 826	1 681	1 836	5.9
France	1 544	1 419	1 450	1 591	1 959	4.5
Netherlands	1 618	1 638	1 703	1 969	2 488	5.3
United States	3 044	3 204	3 398	3 323	3 706	9.5
Other	26 279	25 548	24 285	25 132	29 276	74.1
Total	35 465	34 298	32 872	33 924	39 564	100.0
All processed food						
Australia	7 281	7 874	8 223	8 530	9 075	3.0
France	25 242	23 269	21 840	23 962	28 954	9.1
Germany	19 612	17 390	20 113	21 132	25 923	7.7
Netherlands	18 858	17 365	17 673	19 504	23 830	7.2
United States	22 028	23 184	24 027	23 123	24 974	8.6
Other	162 533	158 174	165 306	177 952	210 918	64.4
Total	255 554	247 256	257 182	274 203	323 673	100.0

^a Based on over 100 reporting countries representing more than 90 per cent of world trade. ^b Average, 1999–2003. ^c Alcoholic and nonalcoholic. ^d Excludes unmilled cereal. ^p Preliminary.

Source: International Trade Centre UNCTAD/WTO; ABARE.

7.2 Value of food exports, European Union

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	4 865	4 682	4 053	4 737	5 502	2.5
Fish or shellfish						
Fish, live or fresh	5 581	5 221	5 610	5 802	7 041	3.1
Fish, dried, salted or smoked	725	709	767	722	907	0.4
Shellfish	2 273	2 225	2 312	2 472	3 020	1.3
Horticulture						
Vegetables	10 443	9 341	10 220	11 445	14 382	5.9
Fruit and nuts	11 100	9 919	10 533	11 669	14 432	6.1
Cocoa	1 623	1 362	1 450	1 893	2 684	0.9
Eggs, albumin	964	958	929	1 049	1 386	0.6
Grains and oilseeds						
Barley	1 504	1 857	1 252	1 139	1 687	0.8
Maize	1 822	1 610	1 520	1 791	1 974	0.9
Oilseeds, not soft oil	194	184	170	217	255	0.1
Oilseeds, soft oil	1 695	1 346	1 457	1 638	1 818	0.8
Rice	910	733	677	786	891	0.4
Wheat or meslin	4 146	3 838	3 681	3 592	4 696	2.1
Other cereal grains, nec	380	354	362	389	379	0.2
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	6 202	5 038	3 840	5 033	6 258	2.8
Meat, fresh, chilled or frozen	12 244	12 332	13 569	13 028	15 366	7.0
Meat or offal, preserved	1 415	1 426	1 648	1 648	2 068	0.9
Meat or offal, preserved, nec	3 267	3 120	3 358	3 685	4 344	1.9
Dairy						
Milk products, excluding butter and cheese	10 034	9 782	9 840	9 141	11 689	5.3
Butter and cheese	2 130	1 829	1 895	1 839	2 539	1.1
Cheese and curd	8 516	8 005	8 821	8 972	11 295	4.8
Fish or shellfish	2 379	2 211	2 350	2 539	2 995	1.3
Cereal products						
Flour or meal from wheat or meslin	980	885	851	883	1 000	0.5
Cereal flour or meal, nec	133	127	154	162	180	0.1
Cereal etc, flour or starch	9 519	8 860	9 529	10 755	13 206	5.4
Horticulture						
Vegetables, prepared or preserved	5 960	5 225	5 550	6 330	7 600	3.2
Fruit, prepared or preserved	2 664	2 406	2 487	2 773	3 412	1.4
Fruit or vegetable juices	2 957	2 831	2 728	2 986	3 681	1.6
Sugar and confectionery						
Sugar, molasses and honey	3 602	3 525	3 738	3 788	4 261	2.0
Sugar confectionery	2 192	2 077	2 059	2 306	2 821	1.2
Chocolate and cocoa preparations	5 210	4 887	5 113	5 671	6 920	2.9

Continued

7.2 Value of food exports, European Union *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	876	685	716	883	1 180	0.5
Animal oil or fat	568	536	554	666	831	0.3
Vegetable oil or fat, fixed, soft	5 002	3 989	4 138	5 165	5 864	2.5
Vegetable oils, fixed, not soft	852	619	638	745	1 030	0.4
Animal or vegetable oils, processed	1 404	1 255	1 259	1 544	1 884	0.8
Other food						
Coffee and coffee substitutes	2 561	2 467	2 323	2 400	2 967	1.3
Tea and mate	499	444	488	536	659	0.3
Spices	443	423	445	497	612	0.3
Edible products, nec	9 301	8 990	9 734	11 001	13 510	5.5
Beverage						
Beverages, nonalcoholic, nec	3 301	3 318	3 797	4 312	5 732	2.1
Alcoholic beverages	23 066	21 207	21 525	24 164	28 727	12.5
Animal feed ^b	7 392	6 983	7 414	8 101	9 227	4.1
Total	182 891	169 819	175 551	190 895	232 913	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO; ABARE.

7.3 Value of food exports, NAFTA

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	2 004	2 452	2 851	2 537	2 205	3.2
Fish or shellfish						
Fish, live or fresh	2 659	2 713	3 063	3 073	3 197	3.9
Fish, dried, salted or smoked	278	287	284	235	232	0.4
Shellfish	2 335	2 578	2 377	2 579	2 773	3.4
Horticulture						
Vegetables	4 575	4 933	5 164	5 021	5 629	6.7
Fruit and nuts	3 957	4 266	4 325	4 491	5 284	5.9
Cocoa	127	97	124	135	157	0.2
Eggs, albumin	199	201	204	209	222	0.3
Grains and oilseeds						
Barley	258	364	369	195	227	0.4
Maize	5 224	4 746	4 779	5 159	5 013	6.6
Oilseeds, not soft oil	239	199	259	332	328	0.4
Oilseeds, soft oil	6 108	6 764	6 864	6 908	9 566	9.7
Rice	948	836	718	771	1 029	1.1
Wheat or meslin	5 906	5 936	6 006	5 623	6 080	7.9
Other cereal grains, nec	767	842	895	852	857	1.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	3 628	4 210	3 884	3 806	4 040	5.2
Meat, fresh, chilled or frozen	4 251	5 042	5 676	4 784	5 219	6.7
Meat or offal, preserved	153	206	202	221	287	0.3
Meat or offal, preserved, nec	610	701	766	745	799	1.0
Dairy						
Milk products, excluding butter and cheese	614	649	748	605	674	0.9
Butter and cheese	26	19	38	30	35	0.0
Cheese and curd	220	209	235	226	215	0.3
Fish or shellfish	732	760	775	765	786	1.0
Cereal products						
Flour or meal from wheat or meslin	222	196	189	240	179	0.3
Cereal flour or meal, nec	145	137	141	180	154	0.2
Cereal etc, flour or starch	2 116	2 272	2 512	2 761	3 213	3.4
Horticulture						
Vegetables, prepared or preserved	1 941	1 915	1 885	1 876	2 009	2.6
Fruit, prepared or preserved	713	744	760	788	890	1.0
Fruit or vegetable juices	906	877	778	802	784	1.1
Sugar and confectionery						
Sugar, molasses and honey	694	634	703	795	721	0.9
Sugar confectionery	653	757	774	755	972	1.0
Chocolate and cocoa preparations	727	901	1 096	1 058	1 297	1.4

Continued

7.3 Value of food exports, NAFTA *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	104	97	111	114	117	0.1
Animal oil or fat	617	472	458	615	636	0.7
Vegetable oil or fat, fixed, soft	1 510	1 020	961	1 212	1 370	1.6
Vegetable oils, fixed, not soft	118	113	121	141	172	0.2
Animal or vegetable oils, processed	322	302	283	386	378	0.4
Other food						
Coffee and coffee substitutes	1 098	1 144	704	636	689	1.1
Tea and mate	86	111	117	114	141	0.2
Spices	104	115	103	100	117	0.1
Edible products, nec	3 442	3 606	4 013	4 022	4 445	5.2
Beverage						
Beverages, nonalcoholic, nec	737	696	698	847	868	1.0
Alcoholic beverages	2 846	3 244	3 447	3 508	3 799	4.5
Animal feed ^b	4 147	4 622	5 096	4 747	4 798	6.2
Total	69 065	72 986	75 556	75 001	82 603	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
Source: International Trade Centre, UNCTAD/WTO.

7.4 Value of food exports, APEC ^a

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	3 149	3 578	4 011	3 801	3 430	2.4
Fish or shellfish						
Fish, live or fresh	8 106	8 418	9 081	9 116	9 846	6.0
Fish, dried, salted or smoked	572	655	643	646	657	0.4
Shellfish	7 550	8 440	7 753	8 033	8 162	5.4
Horticulture						
Vegetables	7 257	7 504	8 117	8 116	8 943	5.4
Fruit and nuts	7 389	7 804	7 731	8 380	9 762	5.5
Cocoa	904	714	769	1 246	1 363	0.7
Eggs, albumin	298	306	324	315	350	0.2
Grains and oilseeds						
Barley	688	798	773	955	883	0.5
Maize	5 777	5 895	5 553	6 470	6 921	4.1
Oilseeds, not soft oil	307	267	346	416	408	0.2
Oilseeds, soft oil	7 076	7 797	7 722	7 789	10 451	5.5
Rice	3 886	3 275	3 749	2 828	3 428	2.3
Wheat or meslin	8 093	8 183	8 437	8 725	8 700	5.6
Other cereal grains, nec	844	911	968	935	988	0.6
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	6 247	7 006	6 975	6 871	7 376	4.6
Meat, fresh, chilled or frozen	7 432	8 178	9 313	8 395	9 287	5.7
Meat or offal, preserved	175	230	222	246	325	0.2
Meat or offal, preserved, nec	1 358	1 667	1 915	1 980	2 263	1.2
Dairy						
Milk products, excluding butter and cheese	2 682	3 105	3 855	3 526	3 739	2.3
Butter and cheese	741	714	637	675	719	0.5
Cheese and curd	1 204	1 247	1 369	1 279	1 289	0.9
Fish or shellfish	5 016	5 515	5 432	5 538	6 105	3.7
Cereal products						
Flour or meal from wheat or meslin	470	449	462	500	462	0.3
Cereal flour or meal, nec	217	214	215	248	230	0.2
Cereal etc, flour or starch	3 184	3 411	3 706	4 061	4 764	2.6
Horticulture						
Vegetables, prepared or preserved	3 567	3 566	3 612	3 839	4 285	2.5
Fruit, prepared or preserved	2 229	2 163	2 263	2 375	2 934	1.6
Fruit or vegetable juices	1 412	1 393	1 374	1 389	1 577	1.0
Sugar and confectionery						
Sugar, molasses and honey	2 595	2 555	2 742	2 867	3 057	1.9
Sugar confectionery	1 151	1 331	1 354	1 372	1 661	0.9
Chocolate and cocoa preparations	1 113	1 314	1 532	1 535	1 871	1.0

Continued

7.4 Value of food exports, APEC ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	439	410	408	441	459	0.3
Animal oil or fat	920	763	741	898	995	0.6
Vegetable oil or fat, fixed, soft	1 890	1 376	1 280	1 529	1 693	1.0
Vegetable oils, fixed, not soft	6 305	5 119	4 659	7 012	8 974	4.3
Animal or vegetable oils, processed	1 623	1 395	1 256	1 688	2 076	1.1
Other food						
Coffee and coffee substitutes	2 233	2 127	1 399	1 472	1 572	1.2
Tea and mate	592	641	629	637	697	0.4
Spices	1 014	1 052	782	790	841	0.6
Edible products, nec	5 862	6 347	7 008	7 263	8 304	4.7
Beverage						
Beverages, nonalcoholic, nec	1 343	1 325	1 384	1 554	1 577	1.0
Alcoholic beverages	5 190	5 854	6 199	6 656	7 474	4.2
Animal feed ^c	6 355	7 428	7 892	7 745	7 944	5.0
Total	136 455	142 436	146 593	152 153	168 843	100.0

^a No data available for Viet Nam. Not including Chinese Taipei. ^b Average, 1999–2003. ^c Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO; ABARE.

7.5 Value of food exports, ASEAN ^a

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 ^p US\$m	Share ^b %
Minimally transformed						
Live animals except fish	196	172	176	170	152	0.7
Fish or shellfish						
Fish, live or fresh	1 205	1 159	1 098	1 069	1 181	4.3
Fish, dried, salted or smoked	109	125	119	143	126	0.5
Shellfish	3 060	3 483	3 129	3 054	2 785	11.7
Horticulture						
Vegetables	615	458	547	557	567	2.1
Fruit and nuts	910	977	879	961	1 030	3.6
Cocoa	710	568	609	1 010	1 078	3.0
Eggs, albumin	58	58	67	51	59	0.2
Grains and oilseeds						
Barley	0	0	0	0	0	0.0
Maize	29	18	70	64	45	0.2
Oilseeds, not soft oil	30	28	20	29	19	0.1
Oilseeds, soft oil	43	25	20	23	28	0.1
Rice	1 950	1 630	1 580	1 582	1 834	6.5
Wheat or meslin	1	1	2	6	2	0.0
Other cereal grains, nec	5	7	8	8	13	0.0
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	3	4	3	4	5	0.0
Meat, fresh, chilled or frozen	471	456	630	638	701	2.2
Meat or offal, preserved	3	3	1	1	1	0.0
Meat or offal, preserved, nec	288	363	412	418	542	1.5
Dairy						
Milk products, excluding butter and cheese	177	259	368	415	457	1.3
Butter and cheese	12	12	9	9	9	0.0
Cheese and curd	5	4	3	3	4	0.0
Fish or shellfish	2 304	2 347	2 311	2 337	2 516	8.9
Cereal products						
Flour or meal from wheat or meslin	38	39	41	43	38	0.2
Cereal flour or meal, nec	50	56	52	48	51	0.2
Cereal etc, flour or starch	401	421	424	449	531	1.7
Horticulture						
Vegetables, prepared or preserved	273	274	256	258	290	1.0
Fruit, prepared or preserved	773	621	643	666	804	2.6
Fruit or vegetable juices	223	209	231	225	317	0.9
Sugar and confectionery						
Sugar, molasses and honey	737	840	922	962	1 208	3.5
Sugar confectionery	183	192	191	193	240	0.8
Chocolate and cocoa preparations	127	135	140	151	175	0.5

Continued

7.5 Value of food exports, ASEAN ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	257	233	222	242	242	0.9
Animal oil or fat	8	12	11	12	15	0.0
Vegetable oil or fat, fixed, soft	214	163	154	163	163	0.6
Vegetable oils, fixed, not soft	5 976	4 811	4 408	6 719	8 604	23.0
Animal or vegetable oils, processed	1 163	963	846	1 189	1 576	4.3
Other food						
Coffee and coffee substitutes	643	527	401	455	484	1.9
Tea and mate	122	139	129	139	122	0.5
Spices	731	735	424	416	385	2.0
Edible products, nec	757	852	928	961	1 251	3.6
Beverage						
Beverages, nonalcoholic, nec	159	166	183	184	192	0.7
Alcoholic beverages	461	475	443	473	596	1.8
Animal feed ^c	523	560	547	614	744	2.3
Total	26 001	24 577	23 659	27 111	31 185	100.0

^a No data available for Laos, Myanmar and Viet Nam. ^b Average, 1999–2003. ^c Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO; ABARE.

7.6 Value of food exports, United States ^a

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 ^p US\$m	Share ^b %
Minimally transformed						
Live animals except fish	652	859	890	634	783	1.6
Fish or shellfish						
Fish, live or fresh	1 659	1 727	2 040	1 971	2 034	3.9
Fish, dried, salted or smoked	77	76	94	57	58	0.1
Shellfish	693	722	612	626	660	1.4
Horticulture						
Vegetables	1 579	1 691	1 655	1 700	1 769	3.4
Fruit and nuts	3 116	3 428	3 495	3 653	4 102	7.3
Cocoa	93	72	97	101	121	0.2
Eggs, albumin	155	159	162	155	164	0.3
Grains and oilseeds						
Barley	85	122	115	72	102	0.2
Maize	5 121	4 704	4 750	5 093	4 963	10.1
Oilseeds, not soft oil	99	92	110	143	116	0.2
Oilseeds, soft oil	4 929	5 671	5 802	6 027	8 292	12.6
Rice	944	835	716	768	1 027	1.8
Wheat or meslin	3 574	3 379	3 378	3 618	3 955	7.4
Other cereal grains, nec	599	644	672	635	612	1.3
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	2 597	3 036	2 550	2 488	3 036	5.6
Meat, fresh, chilled or frozen	3 217	3 674	4 030	3 205	3 523	7.2
Meat or offal, preserved	83	105	112	134	133	0.2
Meat or offal, preserved, nec	443	490	548	527	569	1.1
Dairy						
Milk products, excluding butter and cheese	432	490	518	420	466	1.0
Butter and cheese	5	7	5	6	17	0.0
Cheese and curd	130	138	162	160	152	0.3
Fish or shellfish	313	286	337	337	331	0.7
Cereal products						
Flour or meal from wheat or meslin	166	136	121	150	87	0.3
Cereal flour or meal, nec	118	115	108	132	105	0.2
Cereal etc, flour or starch	1 026	1 058	1 184	1 302	1 482	2.5
Horticulture						
Vegetables, prepared or preserved	1 279	1 211	1 143	1 112	1 077	2.4
Fruit, prepared or preserved	438	469	481	488	524	1.0
Fruit or vegetable juices	731	698	649	658	651	1.4
Sugar and confectionery						
Sugar, molasses and honey	356	348	389	365	390	0.8
Sugar confectionery	267	319	314	254	293	0.6
Chocolate and cocoa preparations	344	463	589	467	503	1.0

Continued

7.6 Value of food exports, United States ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	91	82	91	85	91	0.2
Animal oil or fat	515	383	363	518	544	1.0
Vegetable oil or fat, fixed, soft	1 080	721	692	942	990	1.8
Vegetable oils, fixed, not soft	93	92	100	124	154	0.2
Animal or vegetable oils, processed	233	224	209	309	289	0.5
Other food						
Coffee and coffee substitutes	246	253	265	252	284	0.5
Tea and mate	38	45	49	46	63	0.1
Spices	55	61	56	46	54	0.1
Edible products, nec	2 705	2 845	3 028	2 979	3 304	6.1
Beverage						
Beverages, nonalcoholic, nec	328	312	312	334	397	0.7
Alcoholic beverages	1 173	1 147	1 208	1 216	1 357	2.5
Animal feed ^c	3 526	3 975	4 414	4 068	4 109	8.3
Total	45 403	47 364	48 615	48 376	53 733	100.0

^a Includes Puerto Rico and the US Virgin Islands. ^b Average, 1999–2003. ^c Excludes unmilled cereal. ^p Preliminary.
Source: International Trade Centre, UNCTAD/WTO.

7.7 Value of food exports, France

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	1 622	1 453	1 099	1 538	1 894	4.4
Fish or shellfish						
Fish, live or fresh	543	512	536	591	675	1.6
Fish, dried, salted or smoked	44	53	53	48	55	0.1
Shellfish	254	247	254	252	339	0.8
Horticulture						
Vegetables	1 302	1 073	1 110	1 312	1 561	3.7
Fruit and nuts	1 274	1 211	1 256	1 479	1 666	4.0
Cocoa	283	245	237	321	497	0.9
Eggs, albumin	153	149	137	161	213	0.5
Grains and oilseeds						
Barley	698	587	489	521	772	1.8
Maize	1 395	1 225	1 047	1 261	1 329	3.6
Oilseeds, not soft oil	14	13	9	13	16	0.0
Oilseeds, soft oil	642	558	433	523	636	1.6
Rice	57	44	55	56	54	0.2
Wheat or meslin	2 256	2 102	1 791	1 646	2 304	5.8
Other cereal grains, nec	57	46	43	47	59	0.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	1 042	772	388	623	900	2.1
Meat, fresh, chilled or frozen	1 988	2 053	1 964	1 826	2 088	5.7
Meat or offal, preserved	98	95	127	113	123	0.3
Meat or offal, preserved, nec	536	501	448	465	564	1.4
Dairy						
Milk products, excluding butter and cheese	1 868	1 800	1 759	1 831	2 076	5.4
Butter and cheese	190	180	177	179	224	0.5
Cheese and curd	1 952	1 823	1 774	1 867	2 363	5.6
Fish or shellfish	210	263	134	160	206	0.6
Cereal products						
Flour or meal from wheat or meslin	230	221	168	208	240	0.6
Cereal flour or meal, nec	44	41	47	55	65	0.1
Cereal etc, flour or starch	1 397	1 278	1 319	1 473	1 872	4.2
Horticulture						
Vegetables, prepared or preserved	630	582	629	658	798	1.9
Fruit, prepared or preserved	267	249	225	238	297	0.7
Fruit or vegetable juices	164	157	108	127	197	0.4
Sugar and confectionery						
Sugar, molasses and honey	1 303	1 272	1 120	1 247	1 304	3.6
Sugar confectionery	186	162	162	187	213	0.5
Chocolate and cocoa preparations	736	632	622	707	857	2.0

Continued

7.7 Value of food exports, France *continued*

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	36	30	29	30	34	0.1
Animal oil or fat	86	84	72	99	149	0.3
Vegetable oil or fat, fixed, soft	339	287	277	361	402	1.0
Vegetable oils, fixed, not soft	27	23	31	32	42	0.1
Animal or vegetable oils, processed	52	52	41	51	76	0.2
Other food						
Coffee and coffee substitutes	240	197	191	192	236	0.6
Tea and mate	33	31	35	37	46	0.1
Spices	42	43	55	80	109	0.2
Edible products, nec	1 229	1 148	1 168	1 282	1 569	3.7
Beverage						
Beverages, nonalcoholic, nec	844	858	835	969	1 181	2.7
Alcoholic beverages	8 169	7 246	6 764	7 594	9 199	22.4
Animal feed b	1 301	1 189	1 170	1 273	1 525	3.7
Total	35 836	32 786	30 388	33 730	41 025	100.0

a Average, 1999–2003. b Excludes unmilled cereal. p Preliminary.

Source: International Trade Centre, UNCTAD/WTO.

7.8 Value of food exports, Netherlands

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	502	529	611	632	760	2.2
Fish or shellfish						
Fish, live or fresh	805	714	777	834	1 059	3.0
Fish, dried, salted or smoked	72	68	63	38	43	0.2
Shellfish	221	273	286	264	356	1.0
Horticulture						
Vegetables	2 872	2 709	2 726	3 127	4 187	11.4
Fruit and nuts	1 198	1 049	1 073	1 132	1 678	4.5
Cocoa	939	757	833	983	1 345	3.5
Eggs, albumin	412	422	374	406	454	1.5
Grains and oilseeds						
Barley	23	26	42	26	28	0.1
Maize	34	32	39	32	47	0.1
Oilseeds, not soft oil	23	23	30	40	51	0.1
Oilseeds, soft oil	296	282	346	351	440	1.2
Rice	87	60	54	76	70	0.3
Wheat or meslin	37	26	28	35	29	0.1
Other cereal grains, nec	17	13	14	14	20	0.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	1 399	1 179	792	1 127	1 480	4.3
Meat, fresh, chilled or frozen	2 397	2 404	2 409	2 231	2 426	8.6
Meat or offal, preserved	359	372	348	366	536	1.4
Meat or offal, preserved, nec	364	338	384	392	470	1.4
Dairy						
Milk products, excluding butter and cheese	1 280	1 275	1 242	1 216	1 632	4.8
Butter and cheese	468	333	414	392	674	1.7
Cheese and curd	1 662	1 510	1 700	1 704	2 051	6.3
Fish or shellfish	329	288	282	313	352	1.1
Cereal products						
Flour or meal from wheat or meslin	82	91	87	79	79	0.3
Cereal flour or meal, nec	6	3	7	9	10	0.0
Cereal etc, flour or starch	720	629	616	721	927	2.6
Horticulture						
Vegetables, prepared or preserved	1 409	1 170	1 174	1 326	1 600	4.9
Fruit, prepared or preserved	227	198	216	222	310	0.9
Fruit or vegetable juices	558	518	469	505	543	1.9
Sugar and confectionery						
Sugar, molasses and honey	109	129	351	348	424	1.0
Sugar confectionery	157	136	151	218	344	0.7
Chocolate and cocoa preparations	596	591	607	658	822	2.4

Continued

7.8 Value of food exports, Netherlands *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	206	148	151	188	274	0.7
Animal oil or fat	57	59	53	75	87	0.2
Vegetable oil or fat, fixed, soft	643	418	479	634	689	2.1
Vegetable oils, fixed, not soft	428	282	271	345	490	1.3
Animal or vegetable oils, processed	386	318	317	390	465	1.4
Other food						
Coffee and coffee substitutes	122	120	101	123	176	0.5
Tea and mate	18	22	33	41	46	0.1
Spices	129	116	99	89	105	0.4
Edible products, nec	1 349	1 380	1 470	1 716	2 160	5.9
Beverage						
Beverages, nonalcoholic, nec	348	351	429	440	589	1.6
Alcoholic beverages	1 381	1 318	1 405	1 750	1 925	5.7
Animal feed ^b	1 670	1 670	1 617	1 886	2 144	6.5
Total	26 398	24 350	24 967	27 493	34 398	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO.

7.9 Value of food exports, Germany

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	618	516	522	619	623	2.3
Fish or shellfish						
Fish, live or fresh	453	428	413	382	400	1.7
Fish, dried, salted or smoked	67	77	65	56	73	0.3
Shellfish	74	72	65	71	90	0.3
Horticulture						
Vegetables	459	365	489	536	559	1.9
Fruit and nuts	428	312	430	500	583	1.8
Cocoa	97	62	63	65	110	0.3
Eggs, albumin	103	99	114	131	138	0.5
Grains and oilseeds						
Barley	292	697	363	263	413	1.6
Maize	93	87	110	114	167	0.5
Oilseeds, not soft oil	27	14	12	14	13	0.1
Oilseeds, soft oil	258	145	236	245	165	0.8
Rice	46	43	39	41	45	0.2
Wheat or meslin	760	616	864	834	680	3.0
Other cereal grains, nec	142	153	135	122	125	0.5
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	1 098	847	997	1 117	1 131	4.2
Meat, fresh, chilled or frozen	965	840	1 227	1 412	1 753	5.0
Meat or offal, preserved	51	55	158	115	116	0.4
Meat or offal, preserved, nec	373	359	489	572	677	2.0
Dairy						
Milk products, excluding butter and cheese	2 863	2 563	2 691	2 191	2 949	10.7
Butter and cheese	151	134	143	141	228	0.6
Cheese and curd	1 505	1 395	1 673	1 554	2 150	6.7
Fish or shellfish	363	295	364	386	468	1.5
Cereal products						
Flour or meal from wheat or meslin	153	135	146	138	159	0.6
Cereal flour or meal, nec	16	14	16	17	21	0.1
Cereal etc, flour or starch	1 402	1 354	1 505	1 759	2 251	6.7
Horticulture						
Vegetables, prepared or preserved	390	372	422	474	592	1.8
Fruit, prepared or preserved	389	328	416	451	564	1.7
Fruit or vegetable juices	550	524	541	543	648	2.3
Sugar and confectionery						
Sugar, molasses and honey	738	624	725	626	745	2.8
Sugar confectionery	359	317	359	405	488	1.6
Chocolate and cocoa preparations	1 079	933	1 130	1 267	1 552	4.8

Continued

7.9 Value of food exports, Germany *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	119	72	99	95	128	0.4
Animal oil or fat	115	93	109	113	147	0.5
Vegetable oil or fat, fixed, soft	754	501	602	716	648	2.6
Vegetable oils, fixed, not soft	108	84	96	122	167	0.5
Animal or vegetable oils, processed	399	329	336	443	502	1.6
Other food						
Coffee and coffee substitutes	844	876	795	841	1 005	3.5
Tea and mate	82	80	90	101	126	0.4
Spices	81	71	80	89	112	0.3
Edible products, nec	1 544	1 473	1 607	1 724	2 142	6.9
Beverage						
Beverages, nonalcoholic, nec	346	292	398	568	838	2.0
Alcoholic beverages	1 483	1 220	1 455	1 661	1 986	6.3
Animal feed ^b	1 294	1 210	1 444	1 491	1 631	5.7
Total	23 529	21 075	24 032	25 125	30 106	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO.

7.10 Value of food exports, Belgium–Luxembourg

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share a %
Minimally transformed						
Live animals except fish	448	412	296	335	363	2.0
Fish or shellfish						
Fish, live or fresh	187	192	282	252	316	1.3
Fish, dried, salted or smoked	13	14	13	12	13	0.1
Shellfish	179	167	173	196	260	1.1
Horticulture						
Vegetables	1 252	1 094	1 206	1 308	1 668	7.1
Fruit and nuts	1 751	1 483	1 516	1 631	1 999	9.1
Cocoa	58	80	80	130	215	0.6
Eggs, albumin	107	111	112	118	153	0.7
Grains and oilseeds						
Barley	40	40	11	24	31	0.2
Maize	20	14	17	31	44	0.1
Oilseeds, not soft oil	40	57	43	69	77	0.3
Oilseeds, soft oil	50	45	54	51	71	0.3
Rice	123	103	101	116	140	0.6
Wheat or meslin	196	142	63	72	118	0.6
Other cereal grains, nec	13	10	12	12	11	0.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	346	322	291	370	436	1.9
Meat, fresh, chilled or frozen	1 308	1 483	1 781	1 629	1 839	8.7
Meat or offal, preserved	92	92	106	102	134	0.6
Meat or offal, preserved, nec	448	425	460	494	596	2.6
Dairy						
Milk products, excluding butter and cheese	1 247	1 232	1 257	1 206	1 505	7.0
Butter and cheese	335	320	307	309	379	1.8
Cheese and curd	428	394	485	495	595	2.6
Fish or shellfish	118	99	104	119	171	0.7
Cereal products						
Flour or meal from wheat or meslin	206	170	168	190	215	1.0
Cereal flour or meal, nec	9	9	10	3	5	0.0
Cereal etc, flour or starch	1 233	1 129	1 321	1 459	1 826	7.6
Horticulture						
Vegetables, prepared or preserved	665	564	625	714	851	3.7
Fruit, prepared or preserved	230	214	235	285	366	1.4
Fruit or vegetable juices	588	491	487	570	694	3.1
Sugar and confectionery						
Sugar, molasses and honey	386	494	455	440	532	2.5
Sugar confectionery	248	236	254	287	343	1.5
Chocolate and cocoa preparations	1 031	1 008	1 002	1 132	1 415	6.1

Continued

7.10 Value of food exports, Belgium–Luxembourg *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	190	156	159	225	294	1.1
Animal oil or fat	38	37	46	60	71	0.3
Vegetable oil or fat, fixed, soft	481	355	377	396	443	2.2
Vegetable oils, fixed, not soft	117	81	82	65	90	0.5
Animal or vegetable oils, processed	128	187	210	218	255	1.1
Other food						
Coffee and coffee substitutes	382	343	281	263	324	1.7
Tea and mate	45	46	50	51	59	0.3
Spices	22	19	18	19	27	0.1
Edible products, nec	698	690	762	828	995	4.3
Beverage						
Beverages, nonalcoholic, nec	432	425	479	522	659	2.7
Alcoholic beverages	648	635	597	615	688	3.5
Animal feed ^b	946	866	977	959	951	5.1
Total	17 523	16 483	17 367	18 381	22 238	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO.

8.1 Value of food trade in processed food, by major importing countries ^a

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Meat						
Australia	64	99	90	117	153	0.2
Germany	4 253	3 589	4 059	3 918	4 356	8.5
Italy	3 208	3 083	3 001	3 077	3 689	6.8
Japan	7 813	8 551	8 409	7 776	8 655	17.4
United Kingdom	3 474	3 590	3 987	4 268	5 477	8.8
Other	24 719	25 799	26 811	28 625	32 460	58.4
Total	43 531	44 710	46 355	47 781	54 789	100.0
Dairy						
Australia	171	166	165	157	200	0.6
Belgium-Luxembourg	2 064	1 972	2 048	2 101	2 686	7.6
Germany	3 351	2 551	2 958	3 214	4 093	11.4
Italy	2 657	2 409	2 455	2 396	2 950	9.0
Netherlands	1 982	1 846	1 694	1 811	2 257	6.7
Other	17 051	17 223	18 482	18 125	21 108	64.6
Total	27 275	26 166	27 802	27 804	33 294	100.0
Seafood						
Australia	173	172	171	179	215	1.8
France	614	609	613	716	810	6.6
Japan	2 105	2 499	2 239	2 284	2 170	22.2
United Kingdom	804	714	780	792	842	7.7
United States	1 690	1 821	1 951	2 157	2 362	19.6
Other	4 098	3 898	4 051	4 347	5 076	42.1
Total	9 484	9 712	9 805	10 474	11 474	100.0
Horticulture						
Australia	250	249	217	241	322	1.0
France	2 039	1 904	1 721	1 972	2 450	8.2
Germany	3 198	2 704	2 915	3 100	3 858	12.9
Japan	2 571	2 558	2 499	2 355	2 463	10.2
United States	3 201	3 201	3 145	3 374	3 907	13.8
Other	13 021	12 113	11 919	13 200	15 625	53.9
Total	24 280	22 729	22 415	24 241	28 625	100.0
Beverages ^c						
Australia	319	377	371	368	458	1.0
Germany	3 589	2 955	3 333	3 557	3 770	9.1
Japan	2 069	1 995	1 935	1 893	2 075	5.3
United Kingdom	4 478	4 076	4 211	4 603	5 424	12.0
United States	7 816	8 567	8 964	9 959	11 244	24.6
Other	16 598	16 073	17 081	18 724	22 513	48.0
Total	34 870	34 042	35 895	39 105	45 485	100.0
Sugar and confectionery						
Australia	154	157	139	154	214	0.7
France	1 484	1 377	1 302	1 513	1 849	6.1
Germany	1 723	1 429	1 671	1 760	2 336	7.2
United Kingdom	1 795	1 651	1 698	1 823	2 132	7.4
United States	2 332	2 378	2 534	2 894	3 400	10.9
Other	16 009	14 599	17 312	17 005	18 831	67.7
Total	23 498	21 591	24 656	25 150	28 762	100.0

Continued

8.1 Value of food trade in processed food, by major importing countries ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Australia	189	181	152	193	246	0.8
Germany	1 281	1 122	1 121	1 316	1 664	5.1
Italy	1 524	1 254	1 339	1 665	2 024	6.2
United Kingdom	998	889	866	922	1 144	3.8
United States	1 500	1 508	1 297	1 458	1 707	5.9
Other	20 384	16 661	16 358	20 227	25 608	78.3
Total	25 876	21 615	21 134	25 782	32 393	100.0
Animal feed ^d						
Australia	93	97	122	165	202	0.6
China	619	908	639	772	659	3.1
France	1 266	1 462	1 484	1 521	1 800	6.4
Germany	1 422	1 479	1 679	1 705	1 846	6.9
Japan	1 944	2 036	2 114	2 155	2 309	9.0
Other	15 030	15 993	17 364	18 192	20 410	74.0
Total	20 373	21 974	23 402	24 510	27 227	100.0
Cereal products						
Australia	138	163	130	137	187	0.9
France	1 373	1 277	1 266	1 432	1 725	8.2
Germany	1 359	1 060	1 310	1 468	1 693	8.0
United Kingdom	1 057	1 007	1 092	1 229	1 515	6.8
United States	1 710	1 855	2 004	2 286	2 634	12.1
Other	9 939	9 722	10 461	11 479	13 694	64.0
Total	15 576	15 086	16 263	18 032	21 448	100.0
Other processed food						
Australia	670	713	647	713	895	1.9
France	1 997	1 798	1 628	1 784	2 260	5.1
Germany	3 806	3 117	2 901	2 796	3 419	8.6
Japan	2 450	2 451	2 308	2 234	2 391	6.3
United States	4 964	4 871	4 059	4 401	4 980	12.5
Other	23 824	23 097	23 214	24 058	28 185	65.6
Total	37 712	36 047	34 758	35 986	42 130	100.0
All processed food						
Australia	2 221	2 374	2 203	2 426	3 092	0.9
Germany	24 531	20 489	22 479	23 399	27 694	8.6
Japan	21 772	22 884	22 353	21 567	23 217	8.1
United Kingdom	19 645	18 287	18 889	20 037	24 919	7.4
United States	28 322	29 911	30 125	32 784	36 781	11.4
Other	165 985	159 727	166 435	178 651	209 923	63.7
Total	262 475	253 672	262 485	278 864	325 627	100.0

^a Based on over 100 reporting countries representing more than 90 per cent of world trade. ^b Average, 1999–2003. ^c Alcoholic and nonalcoholic. ^d Excludes unmilled cereal. ^p Preliminary.

Source: International Trade Centre, UNCTAD/WTO.

8.2 Value of total food trade imports, by level of transformation

	1999	2000	2001	2002	2003 p	Share b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	9 307	9 356	8 778	9 319	9 246	2.0
Fish or shellfish						
Fish, live or fresh	24 918	24 982	26 131	26 828	29 381	5.8
Fish, dried, salted or smoked	2 740	2 792	2 814	2 626	2 869	0.6
Shellfish	17 390	19 065	18 099	18 162	19 990	4.1
Horticulture						
Vegetables	22 138	21 276	23 111	24 235	27 746	5.2
Fruit and nuts	32 852	31 023	31 736	34 204	40 693	7.5
Cocoa	6 035	4 657	4 919	6 767	9 599	1.4
Eggs, albumin	1 396	1 376	1 448	1 529	1 869	0.3
Grains and oilseeds						
Barley	2 526	2 924	2 751	2 627	2 833	0.6
Maize	9 332	9 572	9 497	10 362	11 863	2.2
Oilseeds, not soft oil	841	778	801	873	1 007	0.2
Oilseeds, soft oil	13 690	14 896	15 939	15 917	21 450	3.6
Rice	8 158	6 369	5 831	6 213	7 129	1.5
Wheat or meslin	15 200	14 924	15 252	16 274	16 467	3.4
Other cereal grains, nec	1 543	1 629	1 607	1 643	1 716	0.4
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	14 158	14 178	12 548	13 760	15 954	3.1
Meat, fresh, chilled or frozen	22 430	23 414	25 737	25 648	29 065	5.6
Meat or offal, preserved	1 588	1 743	2 252	2 185	2 535	0.5
Meat or offal, preserved, nec	5 355	5 375	5 819	6 188	7 236	1.3
Dairy						
Milk products, excluding butter and cheese	13 899	13 908	14 577	14 061	16 495	3.2
Butter and cheese	2 968	2 747	2 849	2 752	3 654	0.7
Cheese and curd	10 408	9 510	10 376	10 991	13 145	2.4
Fish or shellfish	9 484	9 712	9 805	10 474	11 474	2.2
Cereal products						
Flour or meal from wheat or meslin	1 230	1 245	1 187	1 204	1 297	0.3
Cereal flour or meal, nec	446	412	475	495	606	0.1
Cereal etc, flour or starch	13 900	13 428	14 600	16 332	19 545	3.4
Horticulture						
Vegetables, prepared or preserved	10 655	9 794	10 025	10 749	12 429	2.4
Fruit, prepared or preserved	6 620	6 271	6 242	6 703	8 154	1.5
Fruit or vegetable juices	7 005	6 665	6 149	6 788	8 042	1.5
Sugar and confectionery						
Sugar, molasses and honey	12 649	10 883	13 330	12 837	13 901	2.8
Sugar confectionery	3 974	4 018	4 082	4 409	5 244	1.0
Chocolate and cocoa preparations	6 875	6 690	7 245	7 904	9 617	1.7

Continued

8.2 Value of total food trade imports, by level of transformation *continued*

	1999	2000	2001	2002	2003 p	Share b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	1 356	1 326	1 293	1 407	1 642	0.3
Animal oil or fat	1 907	1 667	1 664	1 864	2 196	0.4
Vegetable oil or fat, fixed, soft	11 123	8 698	8 780	10 653	13 154	2.3
Vegetable oils, fixed, not soft	8 303	6 959	6 471	8 608	11 411	1.8
Animal or vegetable oils, processed	3 187	2 965	2 927	3 250	3 989	0.7
Other food						
Coffee and coffee substitutes	13 527	12 334	9 549	9 024	10 755	2.4
Tea and mate	3 040	3 018	3 009	3 018	3 161	0.7
Spices	2 745	2 839	2 704	2 639	2 992	0.6
Edible products, nec	18 401	17 856	19 497	21 306	25 223	4.5
Beverage						
Beverages, nonalcoholic, nec	4 896	4 984	5 578	6 344	7 498	1.3
Alcoholic beverages	29 974	29 058	30 317	32 761	37 987	7.1
Animal feed c	20 373	21 974	23 402	24 510	27 227	5.2
Total	430 542	419 292	431 198	456 443	529 484	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. b Average, 1999–2003. c Excludes unmilled cereal. p Preliminary.

Source: International Trade Centre, UNCTAD/WTO; ABARE.

8.3 Value of food imports, European Union

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	4 381	4 221	3 686	4 119	4 764	2.1
Fish or shellfish						
Fish, live or fresh	9 258	8 845	9 738	9 908	11 600	4.9
Fish, dried, salted or smoked	1 514	1 353	1 520	1 327	1 523	0.7
Shellfish	5 129	5 130	5 420	5 564	6 953	2.8
Horticulture						
Vegetables	11 683	10 554	11 417	12 390	14 895	6.1
Fruit and nuts	17 966	15 696	16 601	17 931	22 734	9.1
Cocoa	3 627	2 596	2 794	3 907	5 531	1.8
Eggs, albumin	773	765	800	873	1 198	0.4
Grains and oilseeds						
Barley	722	715	821	920	943	0.4
Maize	2 070	1 839	1 812	2 093	2 604	1.0
Oilseeds, not soft oil	395	346	398	436	532	0.2
Oilseeds, soft oil	5 579	5 122	6 054	6 082	7 221	3.0
Rice	1 225	1 062	1 058	1 075	1 279	0.6
Wheat or meslin	3 463	3 147	3 455	3 868	3 888	1.8
Other cereal grains, nec	269	265	280	322	463	0.2
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	5 924	5 105	3 678	5 007	6 492	2.6
Meat, fresh, chilled or frozen	10 323	10 147	11 536	11 100	13 404	5.6
Meat or offal, preserved	1 258	1 391	1 880	1 820	2 074	0.8
Meat or offal, preserved, nec	2 878	2 777	3 076	3 323	4 173	1.6
Dairy						
Milk products, excluding butter and cheese	7 635	7 294	7 268	7 469	9 540	3.9
Butter and cheese	2 134	1 884	1 911	1 820	2 581	1.0
Cheese and curd	7 454	6 462	7 104	7 535	9 267	3.8
Fish or shellfish	3 957	3 620	3 757	4 151	4 891	2.0
Cereal products						
Flour or meal from wheat or meslin	349	316	310	363	438	0.2
Cereal flour or meal, nec	120	98	99	112	143	0.1
Cereal etc, flour or starch	7 419	6 689	7 268	8 270	10 294	4.0
Horticulture						
Vegetables, prepared or preserved	5 485	4 617	4 776	5 375	6 492	2.7
Fruit, prepared or preserved	3 558	3 212	3 171	3 437	4 427	1.8
Fruit or vegetable juices	4 250	3 856	3 442	3 862	4 818	2.0
Sugar and confectionery						
Sugar, molasses and honey	4 304	3 563	4 269	4 717	5 561	2.2
Sugar confectionery	1 787	1 669	1 672	1 863	2 343	0.9
Chocolate and cocoa preparations	4 315	3 902	4 080	4 570	5 701	2.2

Continued

8.3 Value of food imports, European Union *continued*

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 ^p US\$m	Share ^a %
Animal and vegetable oil						
Margarine and shortening	657	565	555	670	887	0.3
Animal oil or fat	590	512	542	583	730	0.3
Vegetable oil or fat, fixed, soft	3 909	2 922	3 292	4 150	5 066	1.9
Vegetable oils, fixed, not soft	2 589	2 134	2 019	2 463	3 166	1.2
Animal or vegetable oils, processed	1 550	1 368	1 388	1 577	1 988	0.8
Other food						
Coffee and coffee substitutes	6 997	6 085	4 787	4 461	5 322	2.8
Tea and mate	905	845	847	889	987	0.4
Spices	883	855	781	799	963	0.4
Edible products, nec	8 225	7 201	7 641	8 590	10 974	4.2
Beverage						
Beverages, nonalcoholic, nec	2 513	2 379	2 735	3 273	3 978	1.5
Alcoholic beverages	15 117	13 371	14 012	15 319	18 045	7.6
Animal feed ^b	10 581	10 758	11 689	12 194	14 017	5.9
Total	195 721	177 253	185 443	200 578	244 889	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
Source: International Trade Centre, UNCTAD/WTO. ABARE.

8.4 Value of food imports, NAFTA

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	2 064	2 466	2 737	2 518	1 871	3.1
Fish or shellfish						
Fish, live or fresh	3 747	3 939	3 821	4 088	4 430	5.4
Fish, dried, salted or smoked	205	214	217	225	227	0.3
Shellfish	4 833	5 605	5 451	5 251	5 801	7.2
Horticulture						
Vegetables	3 883	4 112	4 487	4 820	5 402	6.1
Fruit and nuts	6 304	6 400	6 437	6 896	7 501	9.0
Cocoa	1 188	1 003	1 022	1 214	1 781	1.7
Eggs, albumin	88	82	90	101	98	0.1
Grains and oilseeds						
Barley	127	122	112	99	83	0.1
Maize	893	894	1 110	1 220	1 282	1.5
Oilseeds, not soft oil	114	100	92	96	146	0.1
Oilseeds, soft oil	1 561	1 643	1 705	1 746	1 947	2.3
Rice	454	424	405	376	498	0.6
Wheat or meslin	630	582	736	768	716	0.9
Other cereal grains, nec	642	681	798	807	694	1.0
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	3 039	3 568	4 014	4 131	3 814	5.0
Meat, fresh, chilled or frozen	1 607	2 132	2 465	2 366	2 770	3.0
Meat or offal, preserved	127	184	210	213	292	0.3
Meat or offal, preserved, nec	756	792	838	873	936	1.1
Dairy						
Milk products, excluding butter and cheese	627	746	871	713	796	1.0
Butter and cheese	131	117	211	162	179	0.2
Cheese and curd	977	991	1 096	1 151	1 273	1.5
Fish or shellfish	1 969	2 094	2 240	2 463	2 706	3.1
Cereal products						
Flour or meal from wheat or meslin	62	66	71	93	100	0.1
Cereal flour or meal, nec	72	65	75	92	97	0.1
Cereal etc, flour or starch	2 486	2 713	3 008	3 478	4 022	4.2
Horticulture						
Vegetables, prepared or preserved	1 759	1 781	1 885	2 016	2 277	2.6
Fruit, prepared or preserved	1 278	1 300	1 331	1 490	1 737	1.9
Fruit or vegetable juices	1 319	1 323	1 167	1 230	1 360	1.7
Sugar and confectionery						
Sugar, molasses and honey	1 348	1 301	1 411	1 456	1 619	1.9
Sugar confectionery	977	1 066	1 087	1 233	1 467	1.6
Chocolate and cocoa preparations	982	1 075	1 248	1 358	1 650	1.7

Continued

8.4 Value of food imports, NAFTA *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	59	63	80	87	88	0.1
Animal oil or fat	248	216	218	240	303	0.3
Vegetable oil or fat, fixed, soft	1 052	1 073	953	1 161	1 357	1.5
Vegetable oils, fixed, not soft	703	651	491	562	647	0.8
Animal or vegetable oils, processed	270	290	269	305	388	0.4
Other food						
Coffee and coffee substitutes	3 543	3 302	2 217	2 208	2 510	3.7
Tea and mate	312	324	347	354	403	0.5
Spices	638	668	640	663	812	0.9
Edible products, nec	2 524	2 715	3 039	3 509	3 853	4.2
Beverage						
Beverages, nonalcoholic, nec	913	989	1 072	1 171	1 352	1.5
Alcoholic beverages	8 203	8 955	9 417	10 390	11 888	13.1
Animal feed ^b	1 514	1 636	1 756	1 878	2 028	2.4
Total	66 230	70 461	72 945	77 269	85 200	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.
Source: International Trade Centre, UNCTAD/WTO.

8.5 Value of food imports, APEC ^a

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share b %
Minimally transformed						
Live animals except fish	3 300	3 656	3 781	3 565	3 006	2.0
Fish or shellfish						
Fish, live or fresh	13 708	14 149	14 049	14 593	15 347	8.2
Fish, dried, salted or smoked	891	1 108	955	985	1 026	0.6
Shellfish	11 901	13 535	12 277	12 158	12 554	7.1
Horticulture						
Vegetables	7 232	7 387	7 765	7 843	8 807	4.4
Fruit and nuts	10 917	11 454	11 282	12 184	13 440	6.8
Cocoa	1 809	1 580	1 648	2 145	3 123	1.2
Eggs, albumin	364	343	348	368	367	0.2
Grains and oilseeds						
Barley	709	770	787	648	703	0.4
Maize	4 443	4 598	4 651	4 964	5 508	2.8
Oilseeds, not soft oil	260	244	207	214	247	0.1
Oilseeds, soft oil	6 557	7 945	8 125	7 831	11 696	4.8
Rice	3 317	1 987	1 602	1 864	1 952	1.2
Wheat or meslin	4 128	4 001	4 085	4 338	4 353	2.4
Other cereal grains, nec	1 081	1 097	1 152	1 162	1 068	0.6
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	7 066	7 903	7 921	7 706	8 344	4.4
Meat, fresh, chilled or frozen	9 434	10 780	11 508	11 954	12 619	6.4
Meat or offal, preserved	199	250	275	281	361	0.2
Meat or offal, preserved, nec	1 873	2 050	2 214	2 331	2 497	1.2
Dairy						
Milk products, excluding butter and cheese	2 735	3 093	3 518	2 968	3 188	1.8
Butter and cheese	359	363	485	448	561	0.3
Cheese and curd	1 848	1 920	2 167	2 312	2 588	1.2
Fish or shellfish	4 706	5 279	5 195	5 555	5 767	3.0
Cereal products						
Flour or meal from wheat or meslin	310	315	268	296	303	0.2
Cereal flour or meal, nec	155	131	148	153	167	0.1
Cereal etc, flour or starch	4 092	4 424	4 777	5 409	6 186	2.8
Horticulture						
Vegetables, prepared or preserved	3 941	3 988	4 071	4 190	4 628	2.4
Fruit, prepared or preserved	2 503	2 510	2 522	2 728	3 121	1.5
Fruit or vegetable juices	2 134	2 145	2 004	2 139	2 340	1.2
Sugar and confectionery						
Sugar, molasses and honey	4 842	4 075	5 050	4 411	4 699	2.6
Sugar confectionery	1 501	1 667	1 675	1 828	2 114	1.0
Chocolate and cocoa preparations	1 729	1 934	2 163	2 329	2 753	1.2

Continued

8.5 Value of food imports, APEC ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	324	402	391	418	417	0.2
Animal oil or fat	664	625	628	676	809	0.4
Vegetable oil or fat, fixed, soft	2 892	2 332	2 117	2 851	3 707	1.6
Vegetable oils, fixed, not soft	2 454	2 103	1 906	2 760	3 693	1.5
Animal or vegetable oils, processed	786	784	710	812	961	0.5
Other food						
Coffee and coffee substitutes	5 141	4 863	3 559	3 532	3 966	2.4
Tea and mate	986	974	971	966	1 035	0.6
Spices	1 289	1 338	1 269	1 176	1 309	0.7
Edible products, nec	6 298	6 728	7 465	8 199	9 290	4.3
Beverage						
Beverages, nonalcoholic, nec	1 710	1 859	2 008	2 129	2 464	1.2
Alcoholic beverages	12 143	13 021	13 500	14 576	16 693	8.0
Animal feed ^c	6 427	7 364	7 760	8 141	8 721	4.4
Total	161 158	169 074	170 962	178 140	198 499	100.0

^a No data available for Viet Nam and Chinese Taipei. ^b Average, 1999–2003. ^c Excludes unmilled cereal. ^p Preliminary.
Source: International Trade Centre, UNCTAD/WTO; ABARE.

8.6 Value of food imports, ASEAN ^a

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Minimally transformed						
Live animals except fish	369	355	312	307	337	2.1
Fish or shellfish						
Fish, live or fresh	1 015	944	1 130	1 127	1 282	6.7
Fish, dried, salted or smoked	47	58	49	54	58	0.3
Shellfish	427	504	501	503	529	3.0
Horticulture						
Vegetables	573	557	601	615	622	3.6
Fruit and nuts	575	654	631	697	715	4.0
Cocoa	154	176	212	307	521	1.7
Eggs, albumin	73	67	56	61	64	0.4
Grains and oilseeds						
Barley	3	3	5	4	3	0.0
Maize	398	520	380	459	474	2.7
Oilseeds, not soft oil	44	37	19	32	20	0.2
Oilseeds, soft oil	906	890	872	959	1 146	5.9
Rice	1 914	777	556	821	693	5.8
Wheat or meslin	1 166	1 209	1 255	1 461	1 402	8.0
Other cereal grains, nec	7	10	8	8	13	0.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	233	306	273	260	273	1.7
Meat, fresh, chilled or frozen	341	395	376	400	422	2.4
Meat or offal, preserved	9	11	17	14	14	0.1
Meat or offal, preserved, nec	100	82	78	93	82	0.5
Dairy						
Milk products, excluding butter and cheese	1 050	1 287	1 546	1 282	1 358	8.0
Butter and cheese	106	108	96	96	109	0.6
Cheese and curd	78	82	94	91	92	0.5
Fish or shellfish	146	173	154	188	179	1.0
Cereal products						
Flour or meal from wheat or meslin	127	138	96	115	118	0.7
Cereal flour or meal, nec	27	30	29	27	30	0.2
Cereal etc, flour or starch	373	384	386	386	443	2.4
Horticulture						
Vegetables, prepared or preserved	195	205	199	194	210	1.2
Fruit, prepared or preserved	108	108	107	121	121	0.7
Fruit or vegetable juices	69	71	83	80	85	0.5
Sugar and confectionery						
Sugar, molasses and honey	1 061	761	787	692	817	5.0
Sugar confectionery	82	95	101	122	132	0.7
Chocolate and cocoa preparations	116	130	142	151	170	0.9

Continued

8.6 Value of food imports, ASEAN ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	35	36	20	25	32	0.2
Animal oil or fat	37	35	35	32	40	0.2
Vegetable oil or fat, fixed, soft	240	139	148	161	169	1.1
Vegetable oils, fixed, not soft	368	276	255	413	491	2.2
Animal or vegetable oils, processed	146	121	119	137	147	0.8
Other food						
Coffee and coffee substitutes	112	123	126	144	158	0.8
Tea and mate	36	42	46	46	47	0.3
Spices	328	328	305	228	195	1.7
Edible products, nec	822	939	1 078	1 085	1 216	6.3
Beverage						
Beverages, nonalcoholic, nec	95	114	122	121	138	0.7
Alcoholic beverages	581	614	577	627	766	3.9
Animal feed ^c	1 212	1 570	1 808	1 764	1 942	10.2
Total	15 904	15 466	15 793	16 509	17 878	100.0

^a No data available for Laos, Myanmar and Viet Nam. ^b Average, 1999–2003. ^c Excludes unmilled cereal. ^p Preliminary.
Source: International Trade Centre, UNCTAD/WTO; ABARE.

8.7 Value of food imports, United States ^a

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 ^p US\$m	Share ^b %
Minimally transformed						
Live animals except fish	1 685	1 976	2 283	2 160	1 654	3.7
Fish or shellfish						
Fish, live or fresh	3 268	3 461	3 335	3 563	3 809	6.7
Fish, dried, salted or smoked	148	151	154	162	166	0.3
Shellfish	4 267	4 981	4 840	4 689	5 251	9.2
Horticulture						
Vegetables	2 768	2 891	3 213	3 393	3 906	6.2
Fruit and nuts	4 605	4 570	4 526	4 871	5 261	9.1
Cocoa	998	822	832	963	1 418	1.9
Eggs, albumin	21	19	21	29	24	0.0
Grains and oilseeds						
Barley	84	83	90	70	53	0.1
Maize	175	174	146	147	170	0.3
Oilseeds, not soft oil	82	64	43	51	89	0.1
Oilseeds, soft oil	267	314	268	223	190	0.5
Rice	217	210	199	190	242	0.4
Wheat or meslin	290	245	300	283	144	0.5
Other cereal grains, nec	189	185	246	245	249	0.4
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	2 025	2 340	2 627	2 620	2 461	4.6
Meat, fresh, chilled or frozen	847	1 098	1 215	1 200	1 366	2.2
Meat or offal, preserved	81	111	106	119	204	0.2
Meat or offal, preserved, nec	474	465	471	500	544	0.9
Dairy						
Milk products, excluding butter and cheese	237	246	199	209	231	0.4
Butter and cheese	55	37	103	64	67	0.1
Cheese and curd	755	730	785	835	931	1.5
Fish or shellfish	1 690	1 821	1 951	2 157	2 362	3.8
Cereal products						
Flour or meal from wheat or meslin	44	50	57	74	77	0.1
Cereal flour or meal, nec	24	23	35	51	55	0.1
Cereal etc, flour or starch	1 641	1 782	1 913	2 162	2 502	3.8
Horticulture						
Vegetables, prepared or preserved	1 324	1 338	1 408	1 472	1 707	2.8
Fruit, prepared or preserved	974	956	970	1 091	1 275	2.0
Fruit or vegetable juices	903	906	768	811	926	1.7
Sugar and confectionery						
Sugar, molasses and honey	960	877	921	1 058	1 122	1.9
Sugar confectionery	760	826	817	958	1 172	1.7
Chocolate and cocoa preparations	613	676	795	878	1 106	1.6

Continued

8.7 Value of food imports, United States ^a *continued*

	1999	2000	2001	2002	2003 ^p	Share ^b
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	15	16	20	29	31	0.0
Animal oil or fat	50	54	57	63	67	0.1
Vegetable oil or fat, fixed, soft	718	740	685	772	930	1.5
Vegetable oils, fixed, not soft	568	529	385	432	486	0.9
Animal or vegetable oils, processed	149	170	150	163	194	0.3
Other food						
Coffee and coffee substitutes	3 001	2 814	1 789	1 799	2 075	4.4
Tea and mate	225	232	252	261	284	0.5
Spices	523	548	515	541	680	1.1
Edible products, nec	1 215	1 276	1 503	1 800	1 942	3.0
Beverage						
Beverages, nonalcoholic, nec	671	747	817	902	1 056	1.6
Alcoholic beverages	7 145	7 820	8 147	9 057	10 188	16.2
Animal feed ^c	635	682	664	706	744	1.3
Total	47 385	50 056	50 620	53 823	59 406	100.0

^a Includes Puerto Rico and the US Virgin Islands. ^b Average, 1999–2003. ^c Excludes unmilled cereal. ^p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO.

8.8 Value of food imports, Japan

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share a %
Minimally transformed						
Live animals except fish	192	232	206	197	172	0.5
Fish or shellfish						
Fish, live or fresh	6 833	6 839	6 277	6 209	6 145	14.7
Fish, dried, salted or smoked	257	267	250	257	264	0.6
Shellfish	5 284	5 698	4 628	4 506	4 175	11.1
Horticulture						
Vegetables	1 840	1 820	1 779	1 508	1 575	3.9
Fruit and nuts	1 918	1 969	1 754	1 841	1 922	4.3
Cocoa	162	135	133	176	276	0.4
Eggs, albumin	108	105	104	103	103	0.2
Grains and oilseeds						
Barley	219	244	215	201	265	0.5
Maize	1 887	1 886	1 952	1 995	2 402	4.6
Oilseeds, not soft oil	36	29	24	16	11	0.1
Oilseeds, soft oil	2 035	1 963	1 888	1 972	2 413	4.7
Rice	315	264	196	222	250	0.6
Wheat or meslin	1 075	1 030	1 038	1 124	1 091	2.4
Other cereal grains, nec	335	315	299	288	294	0.7
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	2 449	2 590	2 298	1 516	2 136	5.0
Meat, fresh, chilled or frozen	4 610	5 062	5 099	5 174	5 337	11.5
Meat or offal, preserved	19	24	24	27	30	0.1
Meat or offal, preserved, nec	736	875	988	1 058	1 151	2.2
Dairy						
Milk products, excluding butter and cheese	227	217	241	199	193	0.5
Butter and cheese	2	1	1	6	23	0.0
Cheese and curd	543	548	555	575	573	1.3
Fish or shellfish	2 105	2 499	2 239	2 284	2 170	5.1
Cereal products						
Flour or meal from wheat or meslin	1	1	1	1	1	0.0
Cereal flour or meal, nec	3	4	5	5	5	0.0
Cereal etc, flour or starch	551	556	580	639	703	1.4
Horticulture						
Vegetables, prepared or preserved	1 344	1 330	1 306	1 236	1 315	3.0
Fruit, prepared or preserved	759	749	734	694	723	1.7
Fruit or vegetable juices	468	480	459	425	425	1.0
Sugar and confectionery						
Sugar, molasses and honey	450	463	522	437	471	1.1
Sugar confectionery	60	78	73	83	96	0.2
Chocolate and cocoa preparations	299	317	303	299	335	0.7

Continued

8.8 Value of food imports, Japan *continued*

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share a %
Animal and vegetable oil						
Margarine and shortening	13	13	15	15	15	0.0
Animal oil or fat	75	84	116	92	103	0.2
Vegetable oil or fat, fixed, soft	171	157	149	171	208	0.4
Vegetable oils, fixed, not soft	309	250	204	263	329	0.6
Animal or vegetable oils, processed	117	105	84	85	98	0.2
Other food						
Coffee and coffee substitutes	974	917	688	668	683	1.8
Tea and mate	199	227	229	197	190	0.5
Spices	198	200	198	164	184	0.4
Edible products, nec	1 079	1 107	1 193	1 205	1 334	2.7
Beverage						
Beverages, nonalcoholic, nec	198	241	249	257	353	0.6
Alcoholic beverages	1 871	1 754	1 686	1 636	1 722	3.9
Animal feed b	1 944	2 036	2 114	2 155	2 309	4.8
Total	44 267	45 679	43 097	42 183	44 574	100.0

a Average, 1999–2003. b Excludes unmilled cereal. p Preliminary.
Source: International Trade Centre, UNCTAD/WTO.

8.9 Value of food imports, Germany

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share a %
Minimally transformed						
Live animals except fish	404	351	488	446	517	1.2
Fish or shellfish						
Fish, live or fresh	1 349	1 214	1 421	1 371	1 478	3.7
Fish, dried, salted or smoked	189	167	192	134	159	0.5
Shellfish	208	206	239	185	207	0.6
Horticulture						
Vegetables	3 253	2 704	3 105	3 169	3 622	8.7
Fruit and nuts	4 524	3 659	4 007	4 021	4 873	11.5
Cocoa	728	506	478	654	920	1.8
Eggs, albumin	315	265	323	320	404	0.9
Grains and oilseeds						
Barley	84	90	109	115	134	0.3
Maize	245	177	182	212	254	0.6
Oilseeds, not soft oil	115	105	91	86	113	0.3
Oilseeds, soft oil	1 459	1 266	1 409	1 366	1 774	4.0
Rice	158	144	142	142	164	0.4
Wheat or meslin	204	167	181	215	244	0.6
Other cereal grains, nec	31	33	37	31	41	0.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	764	577	302	475	565	1.5
Meat, fresh, chilled or frozen	2 657	2 242	2 735	2 560	2 779	7.1
Meat or offal, preserved	190	216	410	317	344	0.8
Meat or offal, preserved, nec	643	553	612	566	668	1.7
Dairy						
Milk products, excluding butter and cheese	702	647	785	896	1 289	2.4
Butter and cheese	494	375	378	466	558	1.2
Cheese and curd	2 155	1 529	1 795	1 852	2 246	5.2
Fish or shellfish	548	485	532	565	659	1.5
Cereal products						
Flour or meal from wheat or meslin	23	14	18	24	33	0.1
Cereal flour or meal, nec	9	9	10	14	21	0.0
Cereal etc, flour or starch	1 327	1 037	1 282	1 430	1 640	3.7
Horticulture						
Vegetables, prepared or preserved	1 328	1 036	1 219	1 287	1 477	3.5
Fruit, prepared or preserved	1 023	898	920	1 000	1 321	2.8
Fruit or vegetable juices	847	770	776	813	1 060	2.3
Sugar and confectionery						
Sugar, molasses and honey	544	479	561	654	916	1.7
Sugar confectionery	347	304	309	301	415	0.9
Chocolate and cocoa preparations	832	646	801	805	1 004	2.2

Continued

8.9 Value of food imports, Germany *continued*

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	54	42	46	51	88	0.2
Animal oil or fat	65	61	57	62	66	0.2
Vegetable oil or fat, fixed, soft	287	247	309	376	453	0.9
Vegetable oils, fixed, not soft	580	519	452	549	698	1.5
Animal or vegetable oils, processed	295	253	257	278	360	0.8
Other food						
Coffee and coffee substitutes	1 893	1 637	1 249	1 115	1 273	3.9
Tea and mate	139	106	109	113	154	0.3
Spices	203	180	162	164	193	0.5
Edible products, nec	1 572	1 194	1 381	1 404	1 799	4.0
Beverage						
Beverages, nonalcoholic, nec	463	434	563	747	578	1.5
Alcoholic beverages	3 126	2 521	2 769	2 810	3 192	7.9
Animal feed b	1 422	1 479	1 679	1 705	1 846	4.5
Total	37 798	31 542	34 884	35 865	42 596	100.0

a Average, 1999–2003. b Excludes unmilled cereal. p Preliminary.
 Source: International Trade Centre, UNCTAD/WTO.

8.10 Value of food imports, United Kingdom

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share a %
Minimally transformed						
Live animals except fish	370	517	475	524	571	1.7
Fish or shellfish						
Fish, live or fresh	957	951	958	1 005	1 106	3.5
Fish, dried, salted or smoked	13	12	15	14	19	0.1
Shellfish	303	342	331	341	392	1.2
Horticulture						
Vegetables	1 978	1 881	2 091	2 281	2 668	7.6
Fruit and nuts	2 707	2 463	2 495	2 778	3 250	9.5
Cocoa	476	232	291	412	476	1.3
Eggs, albumin	51	65	73	94	134	0.3
Grains and oilseeds						
Barley	24	11	16	15	11	0.1
Maize	219	214	219	207	261	0.8
Oilseeds, not soft oil	13	11	27	39	30	0.1
Oilseeds, soft oil	313	329	415	392	409	1.3
Rice	289	228	247	227	279	0.9
Wheat or meslin	208	195	210	209	192	0.7
Other cereal grains, nec	11	11	11	12	15	0.0
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	490	489	559	675	902	2.2
Meat, fresh, chilled or frozen	1 540	1 569	1 632	1 684	2 299	6.1
Meat or offal, preserved	648	705	889	930	1 057	2.9
Meat or offal, preserved, nec	796	827	907	979	1 219	3.3
Dairy						
Milk products, excluding butter and cheese	463	463	476	516	699	1.8
Butter and cheese	367	355	354	198	460	1.2
Cheese and curd	987	905	936	959	1 213	3.5
Fish or shellfish	804	714	780	792	842	2.7
Cereal products						
Flour or meal from wheat or meslin	28	30	21	29	30	0.1
Cereal flour or meal, nec	19	16	13	13	15	0.1
Cereal etc, flour or starch	1 010	962	1 058	1 187	1 470	4.0
Horticulture						
Vegetables, prepared or preserved	969	819	752	831	1 060	3.1
Fruit, prepared or preserved	454	414	383	397	475	1.5
Fruit or vegetable juices	436	377	367	425	581	1.5
Sugar and confectionery						
Sugar, molasses and honey	970	836	883	902	1 041	3.2
Sugar confectionery	220	231	248	277	361	0.9
Chocolate and cocoa preparations	606	584	567	644	729	2.2

Continued

8.10 Value of food imports, United Kingdom *continued*

	1999	2000	2001	2002	2003 ^p	Share ^a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	92	85	59	44	50	0.2
Animal oil or fat	98	90	104	88	109	0.3
Vegetable oil or fat, fixed, soft	340	272	280	302	383	1.1
Vegetable oils, fixed, not soft	333	300	251	319	406	1.1
Animal or vegetable oils, processed	135	142	172	168	195	0.6
Other food						
Coffee and coffee substitutes	473	423	325	310	359	1.3
Tea and mate	330	320	297	290	281	1.1
Spices	88	96	95	91	100	0.3
Edible products, nec	1 423	1 142	1 142	1 268	1 684	4.6
Beverage						
Beverages, nonalcoholic, nec	428	432	483	461	666	1.7
Alcoholic beverages	4 050	3 644	3 728	4 142	4 758	14.2
Animal feed ^b	1 049	1 047	1 128	1 114	1 475	4.1
Total	27 577	25 750	26 762	28 587	34 734	100.0

^a Average, 1999–2003. ^b Excludes unmilled cereal. ^p Preliminary.

Source: International Trade Centre, UNCTAD/WTO.

8.11 Value of food imports, France

	1999 US\$m	2000 US\$m	2001 US\$m	2002 US\$m	2003 p US\$m	Share a %
Minimally transformed						
Live animals except fish	373	364	245	236	289	1.2
Fish or shellfish						
Fish, live or fresh	1 489	1 339	1 330	1 373	1 633	5.8
Fish, dried, salted or smoked	111	106	115	102	114	0.4
Shellfish	985	926	934	952	1 140	4.0
Horticulture						
Vegetables	1 432	1 368	1 403	1 596	1 982	6.3
Fruit and nuts	2 220	2 040	2 096	2 247	2 871	9.2
Cocoa	554	398	410	642	852	2.3
Eggs, albumin	75	85	85	97	136	0.4
Grains and oilseeds						
Barley	4	12	7	3	4	0.0
Maize	83	82	96	128	141	0.4
Oilseeds, not soft oil	21	24	23	25	29	0.1
Oilseeds, soft oil	282	180	283	292	360	1.1
Rice	231	220	208	213	272	0.9
Wheat or meslin	54	72	81	73	46	0.3
Other cereal grains, nec	13	13	17	13	16	0.1
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	947	833	562	692	797	3.1
Meat, fresh, chilled or frozen	1 637	1 641	1 632	1 550	1 864	6.7
Meat or offal, preserved	180	184	206	211	267	0.8
Meat or offal, preserved, nec	233	237	251	263	325	1.1
Dairy						
Milk products, excluding butter and cheese	1 005	977	962	899	1 052	3.9
Butter and cheese	395	399	362	342	419	1.5
Cheese and curd	681	654	654	678	823	2.8
Fish or shellfish	614	609	613	716	810	2.7
Cereal products						
Flour or meal from wheat or meslin	60	59	62	63	63	0.2
Cereal flour or meal, nec	16	14	12	12	16	0.1
Cereal etc, flour or starch	1 297	1 204	1 192	1 357	1 646	5.4
Horticulture						
Vegetables, prepared or preserved	815	720	714	824	992	3.3
Fruit, prepared or preserved	621	582	542	599	747	2.5
Fruit or vegetable juices	603	602	465	548	711	2.4
Sugar and confectionery						
Sugar, molasses and honey	434	395	382	468	508	1.8
Sugar confectionery	185	174	156	183	233	0.7
Chocolate and cocoa preparations	866	808	764	862	1 108	3.5

Continued

8.11 Value of food imports, France *continued*

	1999	2000	2001	2002	2003 p	Share a
	US\$m	US\$m	US\$m	US\$m	US\$m	%
Animal and vegetable oil						
Margarine and shortening	117	99	107	162	207	0.6
Animal oil or fat	54	47	53	51	63	0.2
Vegetable oil or fat, fixed, soft	485	414	416	512	561	1.9
Vegetable oils, fixed, not soft	228	210	229	253	294	1.0
Animal or vegetable oils, processed	169	163	166	180	221	0.7
Other food						
Coffee and coffee substitutes	888	764	593	587	692	2.8
Tea and mate	88	84	83	97	122	0.4
Spices	99	103	100	121	171	0.5
Edible products, nec	923	847	852	979	1 275	3.9
Beverage						
Beverages, nonalcoholic, nec	308	302	335	396	474	1.5
Alcoholic beverages	1 384	1 206	1 193	1 330	1 591	5.4
Animal feed b	1 266	1 462	1 484	1 521	1 800	6.1
Total	24 523	23 020	22 475	24 449	29 737	100.0

a Average, 1999–2003. b Excludes unmilled cereal. p Preliminary.

Source: International Trade Centre, UNCTAD/WTO.

9.1 Supply and consumption of alcoholic beverages, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	27 357	510	620	27 318	25 790	32
Egypt	140	0	8	135	84	1
Nigeria	9 482	51	1	9 532	8 669	74
South Africa	4 002	33	456	3 578	3 520	79
Asia ^c	54 903	1 626	1 049	55 790	51 794	14
China	34 213	424	357	34 280	33 494	26
India	4 233	13	57	4 189	1 644	2
Indonesia	256	4	32	228	169	1
Japan	6 653	587	62	7 179	7 039	55
Korea, Rep. of	3 251	228	148	3 331	3 145	67
Malaysia	146	20	46	120	114	5
Pakistan	54	0	32	27	24	0
Philippines	1 240	43	21	1 263	1 176	15
Thailand	1 632	58	140	1 852	1 846	30
Viet Nam	656	6	7	656	656	8
Europe	74 413	9 976	12 833	71 634	65 951	91
Austria	1 243	150	104	1 287	1 216	150
Belgium	1 564	521	693	1 347	1 323	129
Czech Republic	1 926	126	215	1 837	1 749	171
Denmark	793	240	305	766	713	134
France	8 651	1 195	2 448	7 306	5 626	94
Germany	12 061	1 864	1 332	12 822	12 486	152
Greece	876	109	85	894	766	70
Italy	6 669	657	2 021	5 839	4 675	81
Malta	16	5	1	21	19	48
Netherlands	2 572	495	1 261	1 806	1 755	110
Norway	244	90	5	328	301	67
Poland	3 292	116	32	3 376	3 165	82
Portugal	1 533	256	282	1 318	1 198	119
Russian Federation	7 914	407	97	8 225	8 176	57
Slovenia	242	33	82	194	180	91
Spain	6 495	508	1 095	5 459	4 368	107
Sweden	576	241	87	730	683	77
Turkey	895	5	39	860	811	12
United Kingdom	6 598	1 756	1 417	6 986	6 886	117
Middle East						
Iran	0	0	1	- 1	0	0
Kuwait	0	0	0	0	0	0
Saudi Arabia	0	3	0	3	0	0
United Arab Emirates	0	54	1	52	0	0

continued

9.1 Supply and consumption of alcoholic beverages, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	7 066	380	1 448	5 999	5 651	41
North America	35 039	4 647	1 629	38 058	32 320	101
Canada	3 205	547	544	3 207	3 155	102
Mexico	6 429	269	1 316	5 383	4 992	50
United States	31 834	4 101	1 085	34 850	29 165	101
South America	27 083	385	1 126	26 470	15 267	43
Argentina	2 630	22	181	2 482	2 424	65
Brazil	19 125	96	411	18 809	7 725	44
Chile	945	35	421	665	661	43
Uruguay	175	16	5	185	182	54
Oceania	3 348	212	555	2 924	2 679	87
Australia	2 821	127	503	2 367	2 190	113
New Zealand	398	64	47	412	364	95
World	230 226	17 875	19 430	229 177	200 380	33

^a Annual average, 2000–2002. Wine, beer from barley, and other fermented and alcoholic beverages. Includes nonfood alcohol. ^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.2 Supply and consumption of cereals, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	109 181	48 207	2 871	157 073	115 885	143
Egypt	17 659	9 812	507	26 887	16 203	234
Nigeria	20 165	3 657	66	23 856	17 237	146
South Africa	12 674	2 028	1 168	13 475	8 275	186
Asia ^c	816 807	116 280	43 378	890 839	622 093	167
China	341 364	10 722	13 189	352 374	225 846	175
India	188 695	66	5 882	183 939	159 763	155
Indonesia	43 743	6 663	133	50 838	43 440	203
Japan	8 605	27 674	613	35 257	14 657	115
Korea, Rep. of	5 118	13 116	200	17 588	7 381	157
Malaysia	1 474	4 972	296	6 221	3 596	153
Pakistan	26 036	506	2 770	25 402	22 319	153
Philippines	13 037	4 461	22	16 421	10 541	137
Thailand	21 935	1 262	7 598	14 387	7 555	123
Viet Nam	24 256	1 125	3 551	19 357	14 758	186
Europe	416 941	66 721	91 732	384 721	96 655	133
Austria	4 687	864	1 167	4 479	924	114
Belgium	2 504	6 721	3 885	4 516	1 097	107
Czech Republic	6 860	278	882	6 400	1 134	111
Denmark	9 222	1 203	2 347	7 987	663	124
France	65 160	2 873	32 245	35 191	6 939	117
Germany	46 116	4 989	14 081	38 143	8 724	106
Greece	4 699	1 818	603	5 543	1 654	151
Italy	20 302	9 584	4 764	24 523	9 276	161
Malta	12	194	2	207	72	184
Netherlands	1 654	7 030	2 011	6 642	1 236	77
Norway	1 244	526	12	1 765	578	129
Poland	25 393	1 564	303	26 956	5 958	154
Portugal	1 425	3 240	225	4 449	1 335	133
Russian Federation	77 297	3 695	6 159	72 658	22 002	152
Slovenia	532	468	47	1 015	269	135
Spain	21 137	9 237	2 158	26 272	4 013	98
Sweden	5 508	466	1 575	4 584	909	103
Turkey	30 762	2 191	1 825	31 049	15 226	220
United Kingdom	22 032	4 169	4 831	21 120	6 124	104
Middle East						
Iran	15 140	8 689	72	23 746	13 910	207
Kuwait	4	667	17	647	332	141
Saudi Arabia	2 464	6 290	32	8 306	3 409	149
United Arab Emirates	0	2 076	592	1 284	397	138

Continued

9.2 Supply and consumption of cereals, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	32 846	20 205	1 176	50 625	22 253	162
North America	362 803	11 416	108 047	283 316	36 826	115
Canada	43 551	4 234	21 283	30 428	3 667	118
Mexico	29 184	16 344	869	43 675	17 634	176
United States	319 252	7 182	86 763	252 888	33 159	115
South America	100 465	22 030	25 306	96 803	39 085	111
Argentina	35 306	69	22 682	13 573	4 955	132
Brazil	47 776	9 870	429	56 653	18 291	105
Chile	2 982	1 785	228	4 463	2 183	142
Uruguay	1 404	306	972	870	481	143
Oceania	30 512	1 313	20 882	11 382	2 628	85
Australia	29 586	188	20 825	9 424	1 604	83
New Zealand	897	430	38	1 227	376	99
World	1 871 113	291 064	293 479	1 880 891	938 901	153

^a Annual average, 2000–2002. Includes wheat, rice (milled equivalent), barley (excluding beer), maize, rye, oats, millet, sorghum and other cereals. ^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.3 Supply and consumption of starchy roots, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	172 932	774	396	173 598	106 256	131
Egypt	2 199	55	214	2 064	1 592	23
Nigeria	66 497	1	4	66 495	26 394	224
South Africa	1 683	127	49	1 760	1 289	29
Asia c	298 994	12 873	16 240	293 230	170 007	46
China	187 562	7 375	758	194 289	98 420	76
India	31 541	7	43	31 506	25 081	24
Indonesia	19 697	575	672	19 600	14 531	68
Japan	4 514	1 345	6	5 853	4 342	34
Korea, Rep. of	970	1 398	0	2 367	799	17
Malaysia	462	604	30	1 036	522	22
Pakistan	2 215	18	65	2 168	1 880	13
Philippines	2 488	239	5	2 721	2 397	31
Thailand	18 321	191	13 510	2 562	1 097	18
Viet Nam	5 304	12	575	4 740	1 037	13
Europe	140 104	21 642	13 244	148 012	68 093	94
Austria	691	115	43	764	505	62
Belgium	2 798	3 481	2 319	2 287	940	92
Czech Republic	1 237	98	55	1 307	818	80
Denmark	1 564	179	125	1 719	425	80
France	6 463	1 199	1 433	6 137	3 979	67
Germany	12 368	1 327	3 398	9 429	6 152	75
Greece	903	205	24	1 084	753	69
Italy	2 064	1 124	314	2 854	2 303	40
Malta	30	15	3	42	34	88
Netherlands	7 502	5 110	4 121	8 491	1 498	94
Norway	339	56	0	423	321	72
Poland	19 712	106	541	20 031	5 093	132
Portugal	1 257	966	30	2 193	1 301	130
Russian Federation	33 938	423	20	34 341	17 516	121
Slovenia	167	34	3	198	137	69
Spain	3 087	4 067	260	7 025	3 304	81
Sweden	940	298	35	1 148	473	53
Turkey	5 190	219	93	5 316	4 187	60
United Kingdom	6 503	1 606	282	8 150	6 813	115
Middle East						
Iran	3 633	25	78	3 580	3 035	45
Kuwait	27	28	0	55	54	23
Saudi Arabia	349	173	44	478	407	18
United Arab Emirates	12	60	5	67	48	17

Continued

9.3 Supply and consumption of starchy roots, by selected country ^a *continued*

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	2 491	468	323	2 646	2 138	16
North America	26 461	3 128	3 521	26 020	21 280	67
Canada	4 495	434	1 640	3 308	2 568	83
Mexico	1 738	324	28	2 034	1 659	17
United States	21 966	2 695	1 882	22 712	18 712	65
South America	47 108	669	350	47 447	23 620	67
Argentina	2 832	58	157	2 733	2 255	60
Brazil	26 559	193	88	26 663	10 661	61
Chile	1 175	32	7	1 200	831	54
Uruguay	188	46	0	248	181	54
Oceania	3 489	187	151	3 542	2 944	96
Australia	1 243	91	52	1 281	1 053	54
New Zealand	517	55	82	504	306	80
World	694 246	39 886	34 274	697 257	396 301	65

^a Annual average, 2000–2002. Includes cassava, potatoes, yams and other roots. ^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.4 Supply and consumption of sweeteners, by selected country ^a

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	9 718	6 191	3 327	13 081	12 489	15
Egypt	1 556	535	24	2 322	2 104	30
Nigeria	53	1 134	8	1 179	1 179	10
South Africa	2 626	36	1 438	1 458	1 457	33
Asia ^c	62 058	16 713	8 396	68 309	64 179	17
China	10 300	1 799	697	10 789	8 864	7
India	28 397	49	1 253	25 732	25 330	25
Indonesia	2 351	1 390	48	3 990	3 777	18
Japan	2 099	1 743	16	3 803	3 677	29
Korea, Rep. of	847	1 576	437	1 894	1 708	36
Malaysia	132	1 309	442	1 037	1 028	44
Pakistan	3 553	694	28	4 167	4 169	29
Philippines	1 961	281	108	2 190	2 190	28
Thailand	5 782	21	4 001	1 910	1 903	31
Viet Nam	1 126	50	80	1 097	1 033	13
Europe	30 313	17 374	13 958	35 043	29 333	40
Austria	772	376	283	893	369	46
Belgium	1 094	1 420	1 791	839	559	54
Czech Republic	590	141	213	518	452	44
Denmark	680	271	444	493	286	54
France	5 666	891	4 240	2 719	2 394	40
Germany	4 736	1 256	2 097	3 791	3 656	44
Greece	409	79	25	453	372	34
Italy	1 883	669	610	2 038	1 810	32
Malta	0	28	0	28	21	52
Netherlands	2 176	450	569	2 028	755	47
Norway	6	219	19	210	203	45
Poland	2 135	117	369	1 901	1 749	45
Portugal	79	380	107	371	348	35
Russian Federation	1 819	5 178	208	7 084	6 094	42
Slovenia	63	60	29	96	30	15
Spain	1 285	554	406	1 609	1 396	34
Sweden	456	102	137	425	412	47
Turkey	2 366	23	635	1 950	1 914	28
United Kingdom	2 005	1 971	1 082	3 021	2 424	41
Middle East						
Iran	944	955	28	1 785	1 784	27
Kuwait	0	83	3	81	81	35
Saudi Arabia	0	556	15	626	626	27
United Arab Emirates	0	1 165	495	597	111	39

Continued

9.4 Supply and consumption of sweeteners, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	8 853	472	2 649	6 763	6 452	47
North America	20 202	3 727	1 416	23 075	22 362	70
Canada	474	1 616	448	1 708	1 742	56
Mexico	5 156	387	538	5 146	4 926	49
United States	19 728	2 111	968	21 367	20 621	72
South America	30 150	1 048	12 853	18 329	17 638	50
Argentina	2 122	21	430	1 715	1 775	47
Brazil	20 795	30	10 822	9 926	9 928	57
Chile	531	261	22	748	715	46
Uruguay	16	106	15	107	107	32
Oceania	5 413	400	4 141	1 364	1 234	40
Australia	4 980	82	3 778	996	903	47
New Zealand	60	273	63	247	225	59
World	171 328	46 425	50 419	167 504	155 209	25

^a Annual average, 2000–2002. Includes sugar (in raw equivalent terms from both sugar cane and sugar beet), honey and other sweeteners.

^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.5 Supply and consumption of pulses, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	9 048	936	180	10 035	7 417	9
Egypt	487	349	41	839	625	9
Nigeria	2 215	1	0	2 216	1 153	10
South Africa	113	59	8	167	138	3
Asia ^c	25 327	3 661	2 495	26 449	19 688	5
China	5 113	263	738	4 644	1 837	1
India	12 654	1 613	186	14 081	11 805	11
Indonesia	295	37	8	324	276	1
Japan	100	164	0	277	255	2
Korea, Rep. of	29	56	0	85	81	2
Malaysia	0	63	2	61	61	3
Pakistan	823	401	32	1 192	944	7
Philippines	56	80	0	136	132	2
Thailand	298	7	43	262	232	4
Viet Nam	246	5	3	249	221	3
Europe	7 623	2 569	1 659	8 575	1 991	3
Austria	95	9	7	98	7	1
Belgium	6	427	98	334	24	2
Czech Republic	81	12	30	68	14	1
Denmark	134	22	56	130	6	1
France	1 994	143	814	1 322	121	2
Germany	530	109	61	579	108	1
Greece	42	35	1	73	51	5
Italy	125	430	14	542	316	6
Malta	1	1	0	2	1	4
Netherlands	15	253	64	204	29	2
Norway	0	5	0	5	4	1
Poland	203	16	13	207	81	2
Portugal	22	56	10	68	40	4
Russian Federation	1 429	42	64	1 407	171	1
Slovenia	1	4	1	4	2	1
Spain	391	683	23	1 055	231	6
Sweden	77	6	1	82	14	2
Turkey	1 473	136	256	1 352	871	13
United Kingdom	887	170	241	815	340	6
Middle East						
Iran	579	9	107	481	361	5
Kuwait	0	14	0	14	14	6
Saudi Arabia	8	79	2	85	83	4
United Arab Emirates	0	45	20	32	25	9

Continued

9.5 Supply and consumption of pulses, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	2 020	230	232	2 006	1 750	13
North America	4 845	309	2 897	2 417	1 434	5
Canada	3 359	80	2 328	1 190	266	9
Mexico	1 539	154	187	1 489	1 282	13
United States	1 486	229	569	1 227	1 169	4
South America	3 793	530	350	4 167	3 793	11
Argentina	332	6	271	79	48	1
Brazil	2 869	136	8	3 163	2 904	17
Chile	92	23	24	92	62	4
Uruguay	7	4	0	11	10	3
Oceania	1 993	28	2 496	645	47	2
Australia	1 942	11	2 473	599	15	1
New Zealand	44	9	22	31	19	5
World	54 885	8 455	10 316	54 727	36 519	6

^a Annual average, 2000–2002. Includes beans, peas and other pulses. ^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.6 Supply and consumption of vegetables, by selected country ^a

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	47 103	1 229	1 176	47 164	42 556	53
Egypt	14 397	10	323	14 091	12 658	183
Nigeria	8 010	97	0	8 107	7 196	61
South Africa	2 196	47	56	2 187	1 903	43
Asia ^c	556 392	7 854	10 339	553 828	486 924	131
China	356 182	1 131	5 162	352 095	309 441	239
India	76 681	53	753	75 982	70 800	69
Indonesia	6 518	329	107	6 740	6 199	29
Japan	12 466	2 836	11	15 291	13 943	110
Korea, Rep. of	11 912	384	74	12 222	10 552	224
Malaysia	472	710	326	855	845	36
Pakistan	4 966	119	93	4 992	4 791	33
Philippines	4 931	123	27	5 027	4 787	62
Thailand	3 143	61	386	2 819	2 554	42
Viet Nam	6 978	46	66	6 931	6 247	79
Europe	94 665	22 564	20 857	96 681	82 788	114
Austria	537	455	168	824	723	89
Belgium	2 265	1 613	2 050	1 828	1 224	119
Czech Republic	388	427	29	786	743	72
Denmark	290	349	59	580	548	103
France	8 756	2 799	1 730	9 826	8 284	139
Germany	3 699	5 263	713	8 249	7 491	91
Greece	4 021	172	599	3 594	2 901	265
Italy	15 309	1 316	4 745	11 879	9 841	171
Malta	58	8	0	66	56	143
Netherlands	3 560	1 422	3 337	1 611	1 452	91
Norway	131	167	3	295	275	61
Poland	5 415	391	648	5 157	4 408	114
Portugal	2 284	274	503	2 055	1 807	180
Russian Federation	13 394	1 668	41	15 195	13 205	91
Slovenia	57	99	10	146	133	67
Spain	12 072	534	4 671	7 935	6 182	151
Sweden	265	506	54	717	660	75
Turkey	24 492	15	1 209	23 299	15 721	227
United Kingdom	2 822	3 163	255	5 730	5 200	88
Middle East						
Iran	12 137	0	446	11 710	10 399	155
Kuwait	178	226	4	401	381	163
Saudi Arabia	1 703	555	65	2 194	1 996	87
United Arab Emirates	1 232	535	91	1 676	662	230

Continued

9.6 Supply and consumption of vegetables, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	11 335	718	4 234	7 820	7 159	52
North America	39 922	7 374	4 569	42 727	40 071	126
Canada	2 339	2 304	632	4 012	3 798	122
Mexico	9 339	373	3 463	6 250	5 713	57
United States	37 583	5 070	3 938	38 715	36 273	126
South America	19 450	905	1 301	19 054	16 319	46
Argentina	3 058	210	223	3 045	2 721	73
Brazil	7 483	278	197	7 564	6 767	39
Chile	2 656	13	639	2 030	1 548	100
Uruguay	159	47	1	205	180	53
Oceania	3 435	359	689	3 105	2 921	95
Australia	1 897	251	230	1 918	1 864	96
New Zealand	997	73	456	613	536	141
World	776 005	41 182	43 236	774 192	682 112	111

^a Annual average, 2000–2002. Does not include starchy roots. ^b Takes account of stock changes. ^c Not including Middle East countries.
Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.7 Supply and consumption of fruit, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	60 757	920	4 122	57 602	43 186	53
Egypt	7 243	104	251	7 106	6 379	92
Nigeria	9 023	40	0	9 062	8 128	69
South Africa	4 906	25	2 093	2 860	1 626	37
Asia c	201 341	12 706	13 703	200 231	173 304	47
China	68 479	2 817	2 480	68 816	58 664	45
India	45 103	286	341	45 048	38 830	38
Indonesia	8 684	300	307	8 677	7 896	37
Japan	3 905	3 922	32	7 795	6 827	54
Korea, Rep. of	2 686	860	45	3 501	3 235	69
Malaysia	1 172	545	318	1 399	1 223	52
Pakistan	5 405	171	288	5 288	5 070	35
Philippines	11 098	188	2 569	8 716	7 690	100
Thailand	7 660	96	1 740	6 016	5 541	90
Viet Nam	4 491	85	165	4 413	4 039	51
Europe	75 714	46 257	28 230	93 943	59 978	83
Austria	1 060	1 186	644	1 605	1 050	130
Belgium	610	4 104	3 853	889	741	72
Czech Republic	489	584	213	860	723	71
Denmark	36	861	192	622	596	112
France	10 990	5 816	2 405	14 402	5 826	98
Germany	5 235	9 150	2 827	11 543	9 760	119
Greece	4 065	336	1 531	2 903	1 758	161
Italy	17 425	2 301	4 171	15 605	8 029	140
Malta	7	29	2	34	31	78
Netherlands	606	4 254	2 684	2 128	2 073	130
Norway	25	498	5	518	504	112
Poland	2 893	1 250	1 461	2 714	2 002	52
Portugal	1 876	625	126	2 386	1 286	128
Russian Federation	3 367	3 165	64	6 511	5 888	41
Slovenia	268	163	31	400	272	137
Spain	15 499	1 162	5 775	11 011	4 696	115
Sweden	35	1 006	74	967	916	103
Turkey	10 859	145	2 341	8 663	7 162	103
United Kingdom	312	5 591	270	5 633	5 470	93
Middle East						
Iran	12 607	151	885	11 877	10 557	157
Kuwait	11	128	20	125	119	51
Saudi Arabia	1 244	1 110	180	2 174	2 094	92
United Arab Emirates	795	824	328	1 292	345	120

Continued

9.7 Supply and consumption of fruit, by selected country ^a *continued*

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	22 424	1 422	6 982	16 868	14 548	106
North America	31 790	18 742	8 300	42 333	37 238	117
Canada	734	3 758	442	4 066	3 860	124
Mexico	13 850	775	1 476	13 149	11 674	116
United States	31 056	14 984	7 858	38 268	33 378	116
South America	68 993	1 790	23 627	47 179	34 614	98
Argentina	7 212	537	1 680	6 069	3 567	95
Brazil	35 114	349	12 947	22 516	17 449	100
Chile	4 054	196	2 514	1 756	779	51
Uruguay	487	73	132	428	278	83
Oceania	6 162	667	1 175	5 663	3 731	121
Australia	3 292	399	529	3 163	1 780	92
New Zealand	1 034	234	634	642	429	112
World	472 487	82 794	86 865	468 688	370 634	61

^a Annual average, 2000–2002. Includes oranges, mandarines, lemons, limes, grapefruit, other citrus, bananas, plantains, apples (excluding cyder), pineapples, dates, grapes (excluding wine) and other fruit. ^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.8 Supply and consumption of meat, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	11 291	697	134	11 873	11 879	15
Egypt	1 422	146	1	1 568	1 568	23
Nigeria	991	8	0	999	999	9
South Africa	1 668	130	25	1 774	1 768	40
Asia ^c	95 929	7 335	2 643	100 519	100 219	27
China	65 404	2 447	1 676	66 208	66 165	51
India	5 561	0	285	5 276	5 277	5
Indonesia	1 752	35	12	1 775	1 783	8
Japan	2 975	2 802	6	5 636	5 521	43
Korea, Rep. of	1 634	590	46	2 177	2 177	46
Malaysia	986	181	14	1 153	1 122	48
Pakistan	1 786	0	4	1 782	1 782	12
Philippines	2 046	154	1	2 200	2 200	29
Thailand	2 034	3	454	1 583	1 573	26
Viet Nam	2 133	4	46	2 090	2 090	26
Europe	52 167	12 226	11 350	52 835	52 442	72
Austria	966	179	242	903	903	111
Belgium	1 748	397	1 308	836	833	81
Czech Republic	818	55	41	832	812	79
Denmark	2 071	174	1 597	617	608	114
France	6 556	1 146	1 606	6 114	6 054	102
Germany	6 408	1 804	1 344	6 868	6 844	83
Greece	490	490	12	974	935	85
Italy	4 142	1 556	419	5 279	5 258	91
Malta	18	14	0	32	28	73
Netherlands	2 725	697	1 998	1 446	1 429	89
Norway	268	11	4	276	276	61
Poland	3 005	61	204	2 798	2 755	71
Portugal	728	227	24	931	905	90
Russian Federation	4 513	2 106	23	6 538	6 533	45
Slovenia	178	31	23	186	186	93
Spain	5 069	332	697	4 701	4 729	116
Sweden	547	139	39	637	626	71
Turkey	1 364	1	17	1 348	1 348	20
United Kingdom	3 382	1 774	420	4 737	4 685	79
Middle East						
Iran	1 591	30	10	1 610	1 611	24
Kuwait	76	76	1	151	151	65
Saudi Arabia	643	426	23	1 045	1 046	46
United Arab Emirates	76	153	7	221	216	75

Continued

9.8 Supply and consumption of meat, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	5 637	1 316	161	6 794	6 791	49
North America	42 154	2 653	6 224	38 516	38 203	120
Canada	4 140	566	1 422	3 272	3 111	100
Mexico	4 639	1 213	89	5 767	5 767	57
United States	38 014	2 087	4 802	35 244	35 092	122
South America	26 872	374	3 271	23 999	23 538	67
Argentina	3 990	95	366	3 719	3 601	96
Brazil	16 354	62	2 487	13 929	13 931	80
Chile	934	112	95	951	960	62
Uruguay	530	13	268	295	293	87
Oceania	5 527	193	2 555	3 166	2 992	97
Australia	3 808	50	1 673	2 185	2 110	109
New Zealand	1 312	44	879	477	386	101
World	240 411	25 131	26 342	238 868	237 185	39

^a Annual average, 2000–2002. Includes beef and veal, mutton, goat meat, pigmeat, poultry meat and other meat and offal. ^b Takes account of stock changes. ^c Not including Middle East countries.

Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.9 Supply and consumption of eggs, by selected country ^a

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kg	kg
Africa	1 997	37	12	2 022	1 669	2
Egypt	192	0	0	192	156	2
Nigeria	430	0	0	430	379	3
South Africa	339	0	7	333	265	6
Asia ^c	34 518	236	255	34 498	30 898	8
China	23 866	90	75	23 882	21 678	17
India	1 873	0	29	1 844	1 556	2
Indonesia	848	2	3	847	695	3
Japan	2 521	43	0	2 564	2 443	19
Korea, Rep. of	538	3	0	541	478	10
Malaysia	422	2	82	341	272	12
Pakistan	360	0	1	359	305	2
Philippines	535	3	0	539	488	6
Thailand	804	2	7	799	607	10
Viet Nam	204	0	2	202	187	2
Europe	9 763	807	866	9 715	8 956	12
Austria	87	26	7	106	102	13
Belgium	185	54	112	128	109	11
Czech Republic	183	4	7	180	161	16
Denmark	79	28	12	95	83	16
France	1 019	94	91	1 022	930	16
Germany	886	284	86	1 084	1 037	13
Greece	110	4	1	113	101	9
Italy	710	46	17	739	695	12
Malta	6	1	0	7	5	13
Netherlands	638	66	366	338	278	17
Norway	48	1	2	47	43	10
Poland	456	3	4	459	427	11
Portugal	123	9	9	122	103	10
Russian Federation	1 969	8	8	1 976	1 917	13
Slovenia	23	2	1	24	21	10
Spain	673	17	55	635	577	14
Sweden	98	11	5	104	97	11
Turkey	582	2	8	577	516	8
United Kingdom	653	65	17	701	626	11
Middle East						
Iran	583	0	30	553	452	7
Kuwait	22	6	1	28	24	10
Saudi Arabia	128	6	7	127	87	4
United Arab Emirates	16	22	1	38	35	12

Continued

9.9 Supply and consumption of eggs, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	2 136	26	11	2 150	1 845	13
North America	5 456	51	121	5 385	4 553	14
Canada	384	41	19	405	361	12
Mexico	1 860	13	1	1 872	1 601	16
United States	5 071	10	102	4 980	4 192	15
South America	2 917	18	22	2 913	2 300	7
Argentina	320	3	1	322	274	7
Brazil	1 593	0	9	1 585	1 237	7
Chile	113	0	1	112	85	6
Uruguay	34	0	0	34	28	8
Oceania	199	5	2	202	161	5
Australia	141	1	1	142	111	6
New Zealand	46	0	1	46	37	10
World	57 153	1 189	1 290	57 062	50 523	8

^a Annual average, 2000–2002. ^b Takes account of stock changes. ^c Not including Middle East countries.
Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.10 Supply and consumption of seafood, by selected country ^a

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	7 184	2 327	2 040	3 374	6 345	8
Egypt	756	549	2	1 303	1 038	15
Nigeria	473	413	3	882	869	7
South Africa	722	121	242	601	322	7
Asia ^c	77 388	20 779	9 472	86 424	66 277	18
China	43 288	8 735	4 118	47 913	33 201	26
India	5 872	67	493	5 446	4 953	5
Indonesia	4 958	581	598	4 943	4 440	21
Japan	5 555	6 102	384	11 273	8 500	67
Korea, Rep. of	2 190	1 353	690	2 853	2 570	55
Malaysia	1 399	475	292	1 583	1 373	59
Pakistan	624	0	132	493	334	2
Philippines	2 348	788	196	2 940	2 283	30
Thailand	3 533	1 199	1 565	3 167	1 904	31
Viet Nam	1 993	69	470	1 592	1 442	18
Europe	17 528	20 713	16 467	20 685	14 987	21
Austria	3	152	6	149	114	14
Belgium	na	na	na	na	na	na
Czech Republic	25	211	19	216	139	14
Denmark	1 561	1 559	2 563	564	131	25
France	869	2 028	784	2 113	1 854	31
Germany	267	2 664	1 768	1 247	1 216	15
Greece	193	500	110	584	252	23
Italy	524	1 545	212	1 856	1 463	25
Malta	2	32	3	31	18	46
Netherlands	571	1 200	1 023	797	381	24
Norway	3 198	931	2 565	1 582	241	54
Poland	259	414	266	406	506	13
Portugal	198	605	136	666	583	58
Russian Federation	3 826	1 257	1 415	3 676	2 726	19
Slovenia	3	30	4	30	15	7
Spain	1 384	2 339	1 199	2 524	1 911	47
Sweden	327	478	520	285	286	32
Turkey	589	197	51	735	504	7
United Kingdom	915	2 355	874	2 398	1 339	23
Middle East						
Iran	408	256	7	656	318	5
Kuwait	6	15	1	22	19	8
Saudi Arabia	57	140	3	194	169	7
United Arab Emirates	118	23	10	134	70	24

Continued

9.10 Supply and consumption of seafood, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	1 825	366	453	1 642	1 252	9
North America	6 484	4 707	2 918	8 316	7 005	22
Canada	1 173	1 238	1 095	1 316	803	26
Mexico	1 436	231	229	1 439	1 106	11
United States	5 311	3 469	1 823	7 000	6 202	22
South America	16 663	1 058	14 782	4 103	3 030	9
Argentina	922	87	640	369	366	10
Brazil	967	343	95	1 215	1 111	6
Chile	4 421	43	3 727	806	188	12
Uruguay	109	18	95	33	29	9
Oceania	1 099	614	715	1 017	695	23
Australia	236	514	192	557	434	22
New Zealand	635	33	462	207	100	26
World	128 389	50 856	46 891	125 921	100 006	16

^a Annual average, 2000–2002. Includes freshwater fish, demersal fish, pelagic fish, other marine fish, crustaceans, cephalopods and other molluscs. ^b Takes account of stock changes. ^c Not including Middle East countries.
Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.11 Supply and consumption of milk, by selected country ^a

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	27 905	5 210	401	32 727	29 705	37
Egypt	3 963	294	22	4 258	3 484	50
Nigeria	424	517	5	936	833	7
South Africa	2 663	199	148	2 717	2 351	53
Asia ^c	175 305	14 834	2 210	187 953	154 901	42
China	14 738	2 081	426	16 396	14 660	11
India	82 337	10	341	82 005	65 653	64
Indonesia	797	1 167	295	1 669	1 574	7
Japan	8 394	2 135	13	10 517	8 488	67
Korea, Rep. of	2 381	341	12	2 710	1 339	28
Malaysia	41	1 365	145	1 261	1 183	50
Pakistan	26 294	60	2	26 351	22 372	153
Philippines	11	1 677	113	1 575	1 526	20
Thailand	555	1 007	294	1 268	1 246	20
Viet Nam	96	265	0	361	358	5
Europe	216 068	39 294	53 014	202 569	152 965	210
Austria	3 335	820	1 374	2 708	2 336	288
Belgium	3 617	3 771	3 982	3 406	2 493	243
Czech Republic	2 781	193	545	2 429	2 084	203
Denmark	4 621	592	2 644	2 454	1 252	235
France	25 799	3 534	8 125	21 234	16 144	271
Germany	28 155	6 159	11 010	23 467	20 076	244
Greece	1 961	1 182	166	2 977	2 737	250
Italy	12 674	6 584	1 479	18 001	15 127	263
Malta	49	58	1	106	80	204
Netherlands	11 096	4 900	7 393	8 352	5 521	345
Norway	1 600	36	188	1 449	1 219	271
Poland	11 883	858	1 959	10 798	6 880	178
Portugal	2 120	569	317	2 372	2 209	220
Russian Federation	32 865	1 024	1 133	32 764	21 706	150
Slovenia	657	46	140	563	483	243
Spain	7 012	2 390	1 012	8 422	6 679	163
Sweden	3 271	458	331	3 398	3 168	358
Turkey	9 233	69	19	9 282	7 542	109
United Kingdom	14 699	3 273	2 220	15 819	13 464	228
Middle East						
Iran	5 926	61	29	5 958	3 923	58
Kuwait	40	191	5	227	228	98
Saudi Arabia	992	1 285	331	1 946	1 894	83
United Arab Emirates	87	415	12	491	420	146

Continued

9.11 Supply and consumption of milk, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	12 050	3 640	323	15 371	14 279	104
North America	84 137	5 346	2 925	85 643	81 158	254
Canada	8 053	672	817	7 824	6 435	207
Mexico	9 620	2 946	128	12 438	11 427	114
United States	76 084	4 674	2 108	77 819	74 723	259
South America	45 858	2 507	2 307	46 104	39 975	114
Argentina	9 496	63	1 395	8 165	7 586	202
Brazil	21 421	1 129	82	22 468	19 966	115
Chile	2 127	153	153	2 128	1 721	112
Uruguay	1 469	5	472	1 005	668	198
Oceania	24 451	611	16 624	8 471	5 831	189
Australia	11 225	459	6 303	5 406	5 058	261
New Zealand	13 159	56	10 319	2 903	662	174
World	586 959	72 466	77 825	581 009	480 891	79

^a Annual average, 2000–2002. Excluding butter. ^b Takes account of stock changes. ^c Not including Middle East countries.
Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.12 Supply and consumption of vegetable oils, by selected country ^a

	Domestic supply				Food consumption	
	Production	Imports	Exports	Total ^b	Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	5 257	4 039	668	8 752	6 717	8
Egypt	166	558	25	807	411	6
Nigeria	1 805	167	14	1 958	1 621	14
South Africa	442	510	54	865	588	13
Asia ^c	50 452	17 767	22 840	44 195	34 323	9
China	12 736	3 967	425	15 859	11 394	9
India	6 137	4 736	270	10 734	9 951	10
Indonesia	9 772	61	6 992	2 958	2 164	10
Japan	1 895	671	13	2 553	1 867	15
Korea, Rep. of	292	597	22	856	576	12
Malaysia	13 271	606	12 790	806	337	14
Pakistan	711	1 357	25	2 013	1 537	11
Philippines	1 589	97	1 174	511	381	5
Thailand	900	76	295	627	372	6
Viet Nam	194	286	50	430	237	3
Europe	16 154	15 291	10 966	20 326	11 553	16
Austria	134	172	99	207	150	19
Belgium	658	1 398	1 439	598	241	23
Czech Republic	234	158	96	292	168	16
Denmark	161	408	248	322	37	7
France	1 368	1 408	798	1 952	1 060	18
Germany	2 919	2 329	2 295	2 973	1 487	18
Greece	616	128	188	539	299	27
Italy	1 208	1 547	686	2 065	1 566	27
Malta	0	6	0	6	3	7
Netherlands	1 330	2 451	2 245	1 569	266	17
Norway	78	73	41	109	67	15
Poland	371	354	49	681	476	12
Portugal	279	167	140	318	173	17
Russian Federation	1 319	1 032	145	2 205	1 441	10
Slovenia	3	65	19	51	18	9
Spain	2 193	707	966	1 754	1 102	27
Sweden	109	219	216	119	139	16
Turkey	909	756	188	1 425	1 236	18
United Kingdom	832	1 432	292	1 977	1 057	18
Middle East						
Iran	167	921	166	563	521	8
Kuwait	0	58	3	54	50	21
Saudi Arabia	14	381	28	387	377	17
United Arab Emirates	0	228	182	52	30	11

Continued

9.12 Supply and consumption of vegetable oils, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	1 334	1 108	282	2 141	1 237	9
North America	12 444	2 325	3 025	11 401	8 789	28
Canada	1 537	376	720	1 173	749	24
Mexico	898	784	51	1 602	924	9
United States	10 907	1 948	2 305	10 228	8 040	28
South America	12 117	1 340	6 872	6 376	4 242	12
Argentina	5 216	29	4 595	429	447	12
Brazil	5 117	267	1 707	3 744	2 284	13
Chile	35	191	16	195	164	11
Uruguay	21	22	2	38	24	7
Oceania	732	383	577	571	467	15
Australia	264	262	115	430	384	20
New Zealand	2	86	14	77	33	9
World	98 569	42 615	45 244	94 190	67 669	11

^a Annual average, 2000–2002. From soyabeans, groundnuts, sunflowerseed, rapeseed, mustardseed, cottonseed, palm kernels, palm, copra, sesameseed, olives, maize germ and other oil crops. ^b Takes account of stock changes. ^c Not including Middle East countries.
Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

9.13 Supply and consumption of animal fats, by selected country ^a

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Africa	476	519	45	976	622	1
Egypt	117	64	0	183	173	3
Nigeria	35	96	0	132	38	0
South Africa	44	54	10	88	32	1
Asia ^c	8 053	1 842	234	9 689	7 376	2
China	3 181	897	180	3 926	2 949	2
India	2 444	8	6	2 446	2 268	2
Indonesia	85	25	8	103	93	0
Japan	442	216	5	654	226	2
Korea, Rep. of	237	113	7	343	133	3
Malaysia	16	15	2	29	27	1
Pakistan	612	97	0	710	613	4
Philippines	151	63	0	213	181	2
Thailand	30	24	3	52	44	1
Viet Nam	71	8	0	79	78	1
Europe	11 807	3 523	3 350	12 006	8 258	11
Austria	282	36	94	233	140	17
Belgium	511	432	336	607	268	26
Czech Republic	201	27	29	200	98	10
Denmark	421	125	250	299	145	27
France	1 291	445	468	1 268	1 122	19
Germany	2 223	365	525	2 141	1 788	22
Greece	114	40	3	145	35	3
Italy	608	259	134	737	627	11
Malta	4	2	0	5	4	11
Netherlands	522	383	457	418	151	9
Norway	152	255	55	354	81	18
Poland	740	29	46	724	556	14
Portugal	137	28	20	142	133	13
Russian Federation	1 148	304	11	1 441	990	7
Slovenia	43	5	18	31	33	17
Spain	736	224	117	841	199	5
Sweden	214	30	70	174	150	17
Turkey	140	156	7	290	124	2
United Kingdom	439	319	225	538	417	7
Middle East						
Iran	206	36	2	240	170	3
Kuwait	5	7	0	12	8	3
Saudi Arabia	17	33	4	46	37	2
United Arab Emirates	2	14	3	12	10	4

Continued

9.13 Supply and consumption of animal fats, by selected country ^a *continued*

	Domestic supply			Total ^b	Food consumption	
	Production	Imports	Exports		Volume	Per person
	kt	kt	kt	kt	kt	kg
Central America	346	785	27	1 107	417	3
North America	7 886	335	2 026	6 177	2 321	7
Canada	1 052	161	370	844	534	17
Mexico	255	566	5	816	328	3
United States	6 834	174	1 657	5 333	1 787	6
South America	2 387	355	581	2 221	993	3
Argentina	296	27	132	214	146	4
Brazil	1 196	46	31	1 212	486	3
Chile	191	147	15	305	45	3
Uruguay	64	5	63	22	10	3
Oceania	1 330	59	1 112	297	195	6
Australia	746	26	595	192	128	7
New Zealand	575	17	515	81	49	13
World	32 335	7 545	7 376	32 649	20 248	3

^a Annual average, 2000–2002. Includes butter, ghee, cream, raw animal fats, fish body oil and fish liver oil. ^b Takes account of stock changes. ^c Not including Middle East countries.
 Source: Food and Agriculture Organisation, FAOSTAT nutrition data.

10 Selected economic and demographic information – key countries

	2005					2004		
	Population a		Age structure (in years) a			Gross domestic product b		
	million	Growth rate %	0–14 %	15–64 %	65+ %	US\$b	Per person US\$	Agriculture contribution %
Africa								
Egypt	77.5	1.8	33	63	4	316	4 200	17.2
Nigeria	128.8	2.4	42	55	3	126	1 000	36.3
South Africa	44.3	–0.3	30	65	5	491	11 100	3.6
Asia c								
China	1 306.3	0.6	21	71	8	7 262	5 600	13.8
India	1 080.3	1.4	31	64	5	3 319	3 100	23.6
Indonesia	242.0	1.5	29	66	5	827	3 500	14.6
Japan	127.4	0.1	14	66	20	3 745	29 400	1.3
Korea, Rep. of	48.4	0.4	19	72	9	925	19 200	3.2
Malaysia	24.0	1.8	33	33	62	229	9 700	7.2
Pakistan	162.4	2.0	40	56	4	347	2 200	22.6
Philippines	87.9	1.8	35	61	4	431	5 000	14.8
Thailand	65.4	0.9	24	69	8	525	8 100	9.0
Viet Nam	83.5	1.0	28	66	6	227	2 700	21.8
Europe								
Austria	8.2	0.1	16	68	17	256	31 300	2.3
Belgium–Luxembourg	10.8	1.4	18	66	16	343	89 500	1.8
Czech Republic	10.2	–0.1	15	71	14	172	16 800	3.4
Denmark	5.4	0.3	19	66	15	174	32 200	2.2
France	60.7	0.4	18	65	16	1 737	28 700	2.7
Germany	82.4	0.0	14	67	19	2 362	28 700	1.0
Greece	10.7	0.2	14	67	19	226	21 300	7.0
Italy	58.1	0.1	14	67	19	1 609	27 700	2.3
Malta	0.4	0.4	18	69	14	7	18 200	3.0
Netherlands	16.4	0.5	18	68	14	481	29 500	2.4
Norway	4.6	0.4	20	66	15	183	40 000	2.2
Poland	38.6	0.0	17	70	13	463	12 000	2.9
Portugal	10.6	0.4	17	66	17	189	17 900	5.9
Russian Federation	143.4	–0.4	15	71	14	1 408	9 800	4.9
Slovenia	2.0	0.0	14	71	15	39	19 600	3.0
Spain	40.3	0.2	14	68	18	938	23 300	3.5
Sweden	9.0	0.2	17	66	17	255	28 400	2.0
Turkey	69.7	1.1	26	67	7	509	7 400	11.7
United Kingdom	60.4	0.3	18	67	16	1 782	29 600	1.0
Middle East								
Iran	68.0	0.9	27	68	5	517	7 700	11.2
Iraq	26.1	2.7	40	57	3	54	2 100	13.6
Kuwait	2.3	3.4	27	70	3	48	21 300	0.4
Saudi Arabia	26.4	2.3	38	59	2	310	12 000	4.2
United Arab Emirates	2.6	1.5	25	71	4	64	25 200	4.0

Continued

10 Selected economic and demographic information – key countries *continued*

	2005					2004		
	Population a		Age structure (in years) a			Gross domestic product b		
	million	Growth rate	0–14	15–64	65+	US\$b	Per person	Agriculture contribution
%		%	%	%	US\$		%	
North America								
Canada	32.8	0.9	18	69	13	1 023	31 500	2.3
Mexico	106.2	1.2	31	63	6	1 006	9 600	4.0
United States	295.7	0.9	21	67	12	11 750	40 100	0.9
South America								
Argentina	39.5	1.0	26	64	11	484	12 400	10.6
Brazil	186.1	1.1	26	68	6	1 492	8 100	10.1
Chile	16.0	1.0	25	67	8	169	10 700	6.3
Uruguay	3.4	0.5	23	64	13	49	14 500	7.9
Oceania								
Australia	20.1	0.9	20	67	13	612	30 700	3.4
New Zealand	4.0	1.0	21	67	12	93	23 200	4.6
Papua New Guinea	5.5	2.3	38	58	4	12	2 200	34.5
World	6 446.1	1.1	28	65	7	55 500	8 800	4.0

a 2005 estimate. b Purchasing power parity, 2004 estimate. c Not including Middle East countries.
Source: Central Intelligence Agency, *World Factbook 2004*.

Australian Food Statistics 2005

Australian Food Statistics 2005 provides a statistical overview of the Australian food industry's performance, from 'the paddock to the plate'.

It is produced by the Australian Government Department of Agriculture, Fisheries and Forestry. The Department has policy responsibility for the entire food production and processing chain and is working with the industry for improved international competitiveness, innovation and an export focus.

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