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## Singapore

### Fairs Product Specific

### Fresh Temperate Vegetables

## 2001

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#### **Report Highlights:**

**Singapore 's market for fresh temperate vegetables is supplied by imports. Imports totalled US\$133.2 million, comprising mainly potatoes, tomatoes, onions, garlic, cauliflowers, cabbages, carrots, other leguminous and fruited vegetables such as cucumber.**

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**1. Singapore in profile**

Singapore (population of 3.3 million) is one of the most affluent nations in Asia with a GDP per-capita of about US\$22,000 today. About 22% of the population are aged 15 years and below, which represents a sizeable pool of future consumers who will be an important driver for increased consumption of imported food and beverages in future.

Over 76% of its population make up the middle to upper income group of consumers, all of whom lead an urban lifestyle and represent the bulk of the market for imported food and beverages today.

Singapore's economy is based mainly on its strong export manufacturing and financial and business service sectors. Until recently, its economy has been growing in excess of 8% per annum. In 1999, Singapore reported annual GDP growth of about 5.5%, up from 1.3% in 1998, the year when its economic growth contracted as a result of the impact of the Asian economic downturn. The government forecasts economic growth for 2000 to be between 8% to 8.5%.

## **2. Singapore's importance as a regional distribution hub**

Singapore is generally recognised as Southeast Asia's main distribution hub. The facilities offered by its airport and seaport have encouraged a large number of businesses, including food and ingredient suppliers, to base their operations in Singapore to serve their regional markets.

In 1999, US\$ 1.39 billion of food and beverages were re-exported from Singapore to various countries in the world. Of this, around 30% were shipped to ASEAN countries, with Malaysia being the main destination.

About 20% of imported fresh temperate vegetables are re-exported to as many as 29 different countries worldwide. Re-export to neighbouring ASEAN countries form significant proportions, as much as 100 % for some product segments, of the re-export trade out of Singapore. More details on this matter are provided in the next chapter to this report.

## **3. Singapore's fresh temperate vegetables market**

Singapore's market for fresh temperate vegetables is supplied by imports. It imports fresh temperate vegetables for its own consumption and for re-export to other countries in Asia and the Pacific islands.

### **3.1 Market size**

The market is made up of around US\$ 133.2 million in imports of fresh temperate vegetables, comprising mainly potatoes, tomatoes, onions, garlic, cauliflowers, cabbages, carrots, other leguminous and fruited vegetables such as cucumber. The re-export market of fresh temperate vegetables amounts to around US\$30.9 million, of which 78% was for potatoes, onions and garlic.

### **3.2 Imports**

The Table below provides the total imports of fresh temperate vegetables for the five years from 1995 to 1999.

<b>Fresh Temperate Vegetables Imports (Tonnes)</b>					
	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Potatoes	15,199	53,728	29,038	27,920	33,752
Tomatoes	8,120	10,862	12,616	14,351	15,807
Onions inc. spring onions	53,800	65,125	61,138	57,402	55,803
Garlic	19,363	50,613	33,781	22,839	28,854
Cauliflowers	5,263	6,861	6,944	6,625	6,508
Cabbages, mainly Chinese varieties	16,846	24,665	24,029	26,861	28,486
Carrots	9,694	13,335	13,239	13,951	13,828
Other alliaceous vegetables <sup>1</sup>	9,850	13,149	8,597	8,647	8,053
Other vegetables <sup>2</sup>	3,534	5,473	5,656	6,293	7,289
Leafy or stem vegetables <sup>3</sup>	62,796	90,704	91,083	97,203	95,014
Other rooted or tuberous vegetables <sup>4</sup>	6,937	10,054	10,677	11,334	12,578
Fruited or leguminous vegetables <sup>5</sup>	37,709	43,715	43,185	43,943	43,204
<b>Total (Tonnes)</b>	<b>249,111</b>	<b>388,284</b>	<b>339,983</b>	<b>337,369</b>	<b>349,176</b>
<b>Total (US\$ million)</b>	<b>159.9</b>	<b>154.1</b>	<b>136.8</b>	<b>136.7</b>	<b>133.2</b>
<b>% change in imports (Tonnes)</b>		<b>+55.9</b>	<b>-12.4</b>	<b>Negligible</b>	<b>+3.5</b>
<p>1. Includes leeks, fennel and chives.            2. Includes truffles, mushrooms, broccoli, globe artichokes, asparagus.            3. Includes gourd, brussels sprouts, lettuce, zucchini, celery, pumpkin, spinach, dill, chicory, parsley but quantities are small. Most of the leafy and stem vegetables are of the Chinese varieties such as Wong Bak, Chinese celery, Caixin, Kailan and alike.            4. Includes turnips, radish (mainly Chinese) and beetroot.            5. Includes cucumber (mainly non-European variety), winter gourd (Chinese), aubergines, capsicum, gherkins, peas, beans.            Source: Department of Statistics</p>					

The top 3 major supply countries in 1999 are shown by the Table below.

<b>Major Supply Countries and Their Import Market Shares (1999)</b>
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Potatoes	China (32%), Australia (20%), Netherlands (17%)
Tomatoes	Malaysia (62%), Australia (14%), Thailand (12%)
Onions inc. spring onions	India (24%), China (16%), Pakistan (14%)
Garlic	China (83%), Malaysia (17%)
Cauliflowers	Australia (87%), China (9%), USA (2%)
Cabbages	China (66%), Malaysia (14%), Australia (9%)
Carrots	Australia (87%), New Zealand (8%), China (3%)
Broccoli	Australia (81%), China (12%), Vietnam (4%)
Brussels sprouts	Australia (60%), USA (18%), Thailand (9%)
Cabbage lettuce	Malaysia (49%), Australia (32%), USA (13%)
Other lettuce	USA (59%), Malaysia (27%), Australia (10%)
Turnips	Malaysia (85%), Vietnam (11%), China (4%)
Celery	USA (70%), Malaysia (18%), Australia (5%)
Cucumbers & gherkins	Malaysia - mainly cucumbers (99%)
Peas	China (81%), Zimbabwe (13%), South Africa (3%)
Beans	Malaysia (92%), Thailand (4%), China (3%)
Globe artichokes	USA (73%), France (18%)
Asparagus	USA (36%), Australia (30%), Thailand (25%)
Aubergines	Malaysia (92%), Thailand (7%)
Spinach	Malaysia (97%), China (2%)
Mushrooms	China (42%), Thailand (13%), New Zealand (11%)
Truffles	Italy (81%), France (19%)
Source: Department of Statistics	

A sizeable number of countries supply fresh temperate vegetables to Singapore. In 1999, there were 17 countries involved in supplying potatoes, 11 countries involved in supplying tomatoes, 15 countries involved in supplying onions, 8 involved in supplying garlic, 9 involved in supplying cauliflowers, 11 countries involved in supplying cabbages and 12 countries involved in supplying carrots to Singapore.

The USA is a minor supplier of vegetables to Singapore with 3.4% share of the whole vegetable market in 1999. It leads the following markets today:

- Other lettuce (59%), a sizeable growing market.
- Celery (70%), a sizeable relatively mature market.
- Asparagus (36%), a small but growing market.
- Globe artichokes (73%), a very small niche market.

It is the fifth largest supplier of potatoes to Singapore with a market share of 9% in 1999. Its major competitors for fresh temperate vegetables are:

- Australia (cauliflowers, potatoes, tomatoes, cabbage lettuce, carrots, broccoli, brussels sprouts).
- Malaysia (tomatoes, cabbage lettuce, turnips, cucumbers, beans, aubergines, spinach).
- China (potatoes, garlic, cabbages, peas, mushrooms, onions).
- India (onions).
- Italy (truffles).

USA's major competitors, particularly Malaysia and Australia, have the added advantage of being geographically closer to Singapore and therefore are able to ship fresh and chilled temperate vegetables at a very competitive price to Singapore. Malaysia, China and, to an extent, Australia, also have advantages because they supply vegetable varieties which more closely meet with local demand criteria.

### 3.3 Re-exports

The Table below provides the total re-exports of fresh temperate vegetables from Singapore for the five years from 1995 to 1999.

<b>Fresh Temperate Vegetables Re-Exports (Tonnes)</b>					
	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Potatoes	13,025	18,549	16,098	15,432	15,783
Tomatoes	256	998	853	786	385
Onions inc. spring onions	32,663	39,702	31,736	23,953	17,509
Garlic	35,489	58,661	33,182	20,714	19,851
Cauliflowers	1,510	1,766	1,404	1,045	1,254
Cabbages	3,853	8,049	5,990	5,107	3,829
Carrots	2,559	3,011	2,010	2,213	2,044
Other alliaceous vegetables <sup>1</sup>	4,949	7,656	5,426	3,671	4,048
Other vegetables <sup>2</sup>	601	885	788	548	593
Leafy or stem vegetables <sup>3</sup>	1,956	2,907	2,705	1,907	2,299
Other rooted or tuberous vegetables <sup>4</sup>	440	477	293	192	142
Fruited or leguminous vegetables <sup>5</sup>	4,525	5,135	2,153	1,059	663
Total (Tonnes)	101,826	147,796	102,638	76,627	68,400
Total (US\$ million)	72.5	69.2	50.2	37.0	30.9
% change in re-exports(Tonnes)		+45.1	-30.6	-25.3	-10.7

1. Includes leeks, fennel and chives.
2. Includes truffles, mushrooms, broccoli, globe artichokes, asparagus.
3. Includes gourd, brussels sprouts, lettuce, zucchini, celery, pumpkin, spinach, dill, chicory, parsley.
4. Includes turnips, beetroot, radish.
5. Includes cucumber, aubergines, capsicum, gherkins, peas, beans.

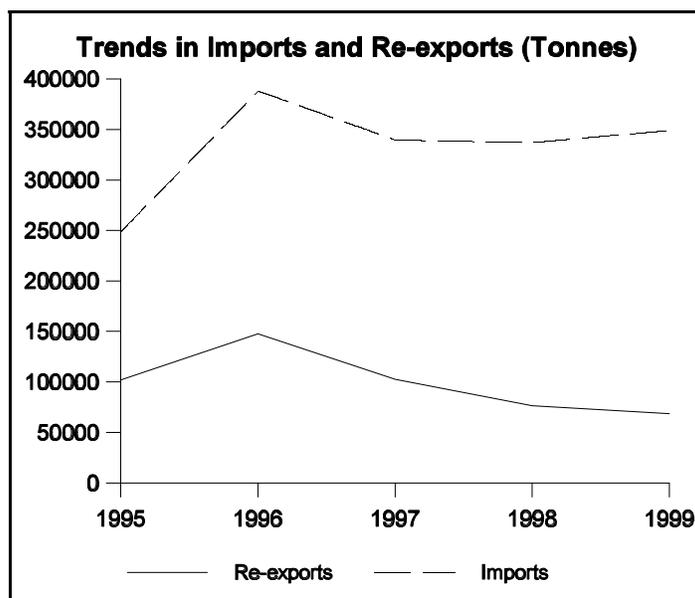
Source: Department of Statistics

Singapore re-exports fresh temperate vegetables to over 29 different countries. 78% of the re-export trade in 1999 was for potatoes, onions and garlic. The main re-export destinations for fresh temperate vegetables are Malaysia and Brunei.

Re-exports to ASEAN countries formed significant proportions of total re-export quantities in 1999, as shown below:

• Potatoes:	99 %
• Tomatoes:	99 %
• Onions, including spring onions:	96 %
• Garlic:	54 %
• Cauliflowers:	100 %
• Cabbages:	100 %
• Carrots:	100 %
• Other alliaceous vegetables:	98 %
• Other vegetables:	97%
• Leafy or stem vegetables:	99%
• Other rooted or tuberous vegetables:	100 %
• Fruited or leguminous vegetables:	98%

### 3.4 Growth prospects



The Chart below shows the trends in imports and re-exports of fresh temperate vegetables over the five years to 1999.

The Table above indicates that overall imports of fresh temperate vegetables have remained at around 1997 levels for the past three years. However, re-exports have continued to decline since 1997, mainly affecting re-exports of onions and garlic to Malaysia. Malaysia was negatively affected by the economic slowdown experienced in the region commencing in 1997, forcing their importers to cut down on costs by sourcing such vegetables directly from foreign suppliers.

Trade sources comment that the fresh vegetables market is mature and future growth will be slow. On the positive front, opportunities exist for imported fresh temperate vegetables from the USA:

- Trade sources comment that the market for US fresh temperate vegetables will continue to grow over the next five years. This is because the importers are satisfied with the products and services they receive from US suppliers. They can always get what they order from the USA when the vegetables are in season and the product quality is usually good. In addition, there is already a good knowledge about foreign vegetables amongst Singaporeans. This is expanding the market for fresh temperate vegetables. Affluence amongst the Singaporeans also allow them the opportunity to consume a wide range of vegetables. Opportunities continue to exist for US exporters to supply a wide range of fresh temperate vegetables to the local importers.
- Trade sources from the food service sector comment that demand for imported fresh temperate vegetables is good, particularly hotels and western restaurants. They usually source for fresh vegetables from the wholesalers. Quality and price are a concern for these buyers. Trade sources comment that in recent years, special orders from these establishments have increased because more western chefs are working in Singapore who utilise fresh temperate vegetables in their menus. In addition, more exotic western style restaurants are being established in Singapore with demands for fresh temperate vegetables. Opportunities exist for US exporters to supply specific fresh temperate vegetables which meet closely with the needs of this food service sector such as asparagus, beef tomatoes, aubergines, broccoli, lettuce, potatoes, celery and alike.
- Major retailers in Singapore, such as Cold Storage, NTUC Fairprice and Shop N Save, are starting to import more fresh temperate vegetables directly from foreign suppliers and growers and passing the cost savings on to their customers. They are also better able to control the quality of the vegetables in their stores. Their major concerns are over price and quality of the vegetables and these concerns match the demands of their customers. They are unsatisfied with the local wholesale market because the shelf life and quality of the fresh temperate vegetables are impaired due to the poor handling by wholesalers. Opportunities exist for US exporters to work directly with the major

supermarkets to supply a wide range of fresh temperate vegetables.

Trade sources comment that opportunities still exist for re-export of fresh temperate vegetables from Singapore to the following ASEAN countries:

- Malaysia (population of 22 million). Malaysia's economy is picking up and consumer confidence is high. Consumer spending is expected to pick up over the next three years which shall present opportunities to suppliers of fresh temperate vegetables. However, the Ringgit exchange rate still has a negative impact on demand for imported products and US exporters need to monitor the situation to assess the impact on future demand for imported products into Malaysia. In addition, the Malaysian retail sector is changing with the entrance of hypermarkets and other large retail stores. Re-exporters will have to deal with these new challengers. This market may become more difficult for some imported products, particularly niche products, in future.
- Brunei (population of 0.3 million). Demand will continue to exist for imported fresh temperate vegetables as it imports all its requirements from overseas suppliers.

The above countries exhibit similar market demand characteristics to Singapore and therefore similar products may be re-exported to these countries. Trade sources added that re-export of fresh temperate vegetables to the above countries remain a seasonal business for perishable fresh temperate vegetables but is a year round business for less perishable vegetables such as potatoes.

US exporters intending to explore the opportunities highlighted in this section are advised to perform detailed market research in these markets to better understand the market characteristics and identify in more detail the opportunities for their products types.

#### **4. Consumer tastes and preference**

Fresh vegetables form an important part of the daily diet for the majority of Singaporeans because they are always consumed at lunch and dinner. A wide range of fresh temperate vegetables are readily available in the Singapore market today.

Trade sources estimate that fresh temperate vegetables make up about 75% of the total fresh vegetables import market. However, a large proportion of these imported fresh temperate vegetables are of the Asian varieties such as Chinese cabbage (Wongbak), Chinese lettuce, Chinese spinach, Chinese radish, winter gourd, Asian cucumber, Chinese chives and alike.

The following demand traits exist in this market:

- Potatoes form part of the traditional vegetables consumed by Singaporeans. The potato is consumed as a vegetable, unlike in western countries where it is a staple starch product. For example, potatoes are commonly used as vegetables in curries or cut into cubes and used as vegetables in soup. Harder variety potatoes (not sweet potatoes) from China, Malaysia or Indonesia are preferred as they can withstand frying, boiling or stewing without softening or disintegrating easily, unlike varieties like Russet which tend to

soften and disintegrate easily when boiled or stir fried. Non-Asian variety potatoes are demanded more by the expatriate residents and by hotels and western style restaurants.

- Tomatoes are now becoming part of the fresh vegetables consumed by Singaporeans, although not consumed in large quantities. Tomatoes are mainly used in soups or fried as a vegetable with meat. Household usage of tomatoes in salads is still a rare but developing trend. An important demand base for tomatoes come from the food service sector, such as the fast food outlets, hotels and western style restaurants.
- Onions and garlic are used in large quantities as seasonings in most of the local dishes. As these are basic commodities, price is an important consideration for the purchasers.
- Western fresh temperate vegetables such as broccoli, cauliflowers, carrots, french beans, peas and capsicums are consumed in small quantities as most local consumers prefer the lower priced Asian vegetables that they are familiar with. The main demand for such vegetables comes from the food service sector such as middle to high end Chinese restaurants, hotels and western style restaurants.
- Other exotic western fresh temperate vegetables such as brussels sprouts, savoy cabbage, red cabbage, radish, beetroot, parsnip, gherkins, zucchini, artichokes, asparagus, alfalfa sprouts and alike are mainly demanded by hotels, western style restaurants and western expatriates residing in Singapore. Local consumers do not understand these vegetables and generally avoid them because they do not know how to use them.
- Salad vegetables such as lettuce are readily consumed by Singaporeans, fresh in a salad, used in hotpots, cooked in soup or used in stir fried dishes. The preferred lettuce is the Chinese variety. The non-Asian lettuce, such as coral, velvet, cos, oakleaf and alike, are mainly demanded by the expatriate residents as well as western style restaurants and hotels which are important customers for these products.
- Fresh herbs such as mints, basil, dill, fennel and alike are not understood by local consumers as these are not used in local dishes. These types of vegetables are usually ignored by local shoppers as they do not know how to use them. They are generally demanded by the expatriate residents, western restaurants and hotels but in small quantities.

## **5. Brief import requirements for fresh temperate vegetables**

Singapore is virtually a free port. No import duty is imposed on imported fresh temperate vegetables. A Goods and Services Tax (GST) at the rate of 3% is imposed on the importation of goods into Singapore, calculated based on the CIF (Cost, Insurance, Freight) value in Singapore dollars.

When food enters Singapore, companies must submit the proper documentation to the Controller of Imports and Exports. An inward cargo manifest must be submitted to Customs within 24 hours of arrival of the carrier. All declarations are required to be submitted and approved electronically through the EDI network called the TradeNet System.

Every consignment of fresh temperate vegetables imported is required to be approved by the Agri- Food And Veterinary Authority (AVA). The AVA's Import Control Section is responsible for regulating the imports of fresh temperate vegetables into Singapore.

The import regulations are imposed to ensure that Singapore's supply of fresh temperate vegetables is safe for human consumption. The fresh temperate vegetables must not contain pesticide residues exceeding that prescribed under rule 13 of the Control of Plants (Import of Fresh Fruits and Vegetables) Rules 1994. Imported fresh temperate vegetables are also tested for any presence of *Escherichia coli* 0157:H7.

The importer must be licensed by the Primary Production Department (PPD) to import fresh temperate vegetables. The importer has to be registered under the Business Registration Act or incorporated under the Companies Act to be eligible to apply for registration or a licence to import fresh vegetables. All imported fresh temperate vegetables are subject to inspection. The consignment may be sampled by the PPD for laboratory testing.

## **6. Distribution patterns**

The bulk of fresh temperate vegetables are imported by local importers. All fresh temperate vegetables are air-flown to Singapore to maintain the freshness demanded by the consumers. Some less perishable temperate vegetables such as potatoes, garlic and onions are shipped in bulk by sea.

The fresh temperate vegetables are then distributed via wholesalers and distributors to retail outlets and food service outlets throughout Singapore. Most consumers purchase their fresh temperate vegetables from the wet markets and supermarkets. Retailers and food service operators generally source their fresh temperate vegetables from wholesalers and distributors although the larger retailers have recently started to source fresh temperate vegetables directly from the overseas growers to cut out the middlemen's costs and pass on the cost savings to their customers.

Fresh temperate vegetables are distributed to:

- Supermarkets and mini markets.
- Local neighbourhood grocery stores.
- Wet markets.
- Food stalls at cooked food centres and other food caterers.
- Asian Restaurants and high end western restaurants.
- Hotels.
- Others such as cruise ships and airline caterers.

Distribution of fresh temperate vegetables in Singapore is challenging because of:

- The hot climate which can rapidly reduce the product quality. Fresh temperate vegetables have to be stored and distributed under cool conditions to prevent any deterioration in product quality. For this reason, temperature controlled distribution

facilities are needed to maintain the fresh temperate vegetables at optimum quality conditions. The temperature must be suitable according to the vegetable type. However, the vegetables must not be frozen.

- The poor handling by retail staff which can result in damage to the product quality. Fresh vegetables of all varieties are still handled poorly in a large number of supermarkets. It is not unusual to find fresh temperate vegetables being poured out of the original packaging box by retail store staff without due care and attention to whether the vegetables will become damaged from the rough handling.
- Poor understanding of temperate vegetables by both the retailers and the consumers. Temperate vegetables that are not in optimum condition for consumption can often be displayed for sale, to the detriment of future sales of such vegetables. The consequence is that consumers often complain about the poor quality of such vegetables and ignore them in future.

Trade sources comment that they usually re-pack highly perishable fresh temperate vegetables before re-exporting to other ASEAN countries to reduce the risk of including vegetables which have deteriorated. Less perishable temperate vegetables such as potatoes can be re-exported in its original packing to other ASEAN countries without any need for re-packing or re-labelling.

#### **Appendix A: List of importers**

Be Fresh Pte Ltd  
Block 17 Wholesale Centre #01-120  
Singapore  
Tel: 778 0150  
Fax: 779 7290

Benelux Flowers & Food Pte Ltd  
Block 7, Wholesale Centre #01-239  
Singapore  
Tel: 779 6890  
Fax: 779 7203

Chan Kok Hon Vegetables & Fruits Trading

Block 12, Wholesale Centre #01-587  
Singapore 110013  
Tel: 775 9032 / 775 2205  
Fax: 774 0226

Chia Teck Shun Food Impex Co  
Block 13, Wholesale Centre #01-612  
Singapore 110013  
Tel: 779 6622  
Fax: 778 9978

Cold Storage Singapore (1983) Pte Ltd  
1 Sophia Road #06-38  
Singapore  
Tel: 337 2766  
Fax: 334 4090

CT Vegetables & Fruits Pte Ltd  
Block 24, Wholesale Centre #01-185  
Singapore  
Tel: 779 2694  
Fax: 779 4479

Interstates Market Pte Ltd  
680 Upper Thomson Road  
Singapore 787103  
Tel: 450 9849  
Fax: 458 8975  
(Related to NTUC)

NTUC Fairprice Co-Operative Ltd  
680 Upper Thomson road  
Singapore 787103  
Tel: 456 0233  
Fax: 450 9740

Pan-Commercial (Pte) Ltd  
Block 1 Wholesale centre #02-02  
Singapore  
Tel: 779 3666  
Fax: 776 7771 / 779 3363

Sea Bulk (Pte) Ltd  
Block 26 Wholesale Centre #01-212  
Singapore

Tel: 777 1527

Fax: 777 1631

Shop N Save Pte Ltd

48 Lorong 21 Geyland #04-01

Singapore 388464

Tel: 843 0639

Fax: 842 7488

Sin Hua Heng Kee & Co

Block 12 Wholesale Centre #01-591

Singapore

Tel: 775 5669

Fax: 777 7646

## Appendix B: Retail Price Sample

Product type	Source	Unit Price (S\$)
Vine tomatoes	Holland	1.20/100g
Carrots	Australia	0.45/100g
Baby carrots	NI	1.50/250g
French beans	NI	0.60/100g
Sugar snap peas	NI	1.50/100g
Celery	NI	0.35/100g
Cauliflowers	NI	0.49/100g

Red cabbage	NI	0.45/100g
Cucumber	Malaysia	0.25/100g
Broccoli	Australia	0.59/100g
Asparagus	Australia	1.80/100g
Zucchini	NI	0.79/100g
Brussels sprout	NI	0.79/100g
Leeks	NI	0.69/100g
Capsicum red	NI	0.94/100g
Lettuce coral	NI	1.80/100g
Artichokes	NI	1.20/100g
Dill	NI	1.90/100g
Savoy cabbage	NI	0.59/100g
Pumpkin	Australia	0.45/100g
Onions white	NI	0.49/100g
Potato red	NI	0.49/100g
Potato Russet	NI	0.20/100g
NI: Country source not indicated Source: Market observations conducted in September 2000		