

**APPARENT CONSUMPTION
OF FOODSTUFFS AND NUTRIENTS
AUSTRALIA 1975-76 and 1976-77**

CATALOGUE NO. 4306.0
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AUSTRALIAN BUREAU OF STATISTICS Canberra

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EXPLANATORY NOTES

This publication contains detailed statistics of the consumption of foodstuffs and nutrient intake in Australia for the years 1975-76 and 1976-77 as well as comparative data for earlier years. Part I deals with the supply and utilisation of foodstuffs, while Part II deals primarily with the level of nutrient intake in Australia. These levels are compiled by officers of the Nutrition Section of the Commonwealth Department of Health to whom thanks are extended.

The following mean population figures (year ended 30 June basis) have been used in this publication:

Average 3 years ended -

1938-39	6,870,261
1948-49	7,651,558
1958-59	9,741,073
1968-69	11,919,046

Individual years -

1971-72	13,063,866
1972-73	13,281,194
1973-74	13,488,234
1974-75	13,695,682
1975-76	13,846,241
1976-77	13,991,838

The population figures for the period 1971-72 to 1974-75 have been revised in the light of results obtained from the 1976 Census of Population and Housing.

Factors affecting consumption estimates

In interpreting the figures shown in this publication the following factors should be noted:

- (a) Changes in the composition of the population have a bearing on trends in the patterns of consumption (particularly on estimates of consumption per head of population). The most significant change since 1945, which has almost certainly had some effect on the consumption pattern, is the increasing proportion of the population born overseas and resident for only a comparatively short period in Australia (e.g. the proportion of the population born overseas was 9.8 per cent in 1947, 14.3 per cent in 1954, 16.9 per cent in 1961, 18.4 per cent in 1966, 20.2 per cent in 1971 and 22.4 per cent in 1976).
- (b) Another similar factor is the age distribution of the population which may also affect data relating to consumption per head. For example, while consumption per head of infants' and invalids' food has been calculated on the basis of the mean Australian population for the years concerned, these commodities are clearly consumed by a relatively small proportion of people. The effective consumption per head by

these consumers would therefore be considerably higher than the figures shown in the relevant table.

- (c) In general, the statistics in the publication are for financial years. However, where there is a marked seasonal pattern in the production or marketing of certain crops, the statistics in practice refer to crop years. For example, statistics relating to commercial production of citrus fruit are on the basis of the year ending 31 March.

Changing trends

With the object of illustrating changing trends in the pattern of food consumption in recent years, estimates for 1976-77 have been compared with averages for the 3 years ended 1968-69.

- While variations in the consumption of different types of meat have been pronounced during this period, the total intake of meat has increased only slightly. The consumption of milk and milk products, on the other hand, has fallen particularly for fluid whole milk. These changes are reflected in increases in animal protein and a decrease in calcium available for consumption.
- An increase in the consumption of fat associated with increased consumption of meat has been balanced by a decrease in the oils and fats group.
- There have been considerable changes in the relative proportions of butter and margarine consumption in the oils and fats group. Between the 3 years ended 1968-69 and 1976-77 margarine increased from 33.3 per cent of the total to 59.9 per cent.
- Total availability of carbohydrate has decreased marginally during the decade, due mainly to a reduction in the amount of flour available for consumption.
- Sugar available for consumption has fluctuated over the period, rising from 51.9 kg per head in the 3 years ended 1968-69 to 54.4 kg in 1973-74 and 55.6 kg in 1975-76. In the last year apparent consumption has dropped slightly. However, of greater significance than this total change has been the growth in the proportion of sugar derived from manufactured foods, which has increased from 53.4 per cent in the 3 years ended 1968-69 to 64.1 per cent in 1976-77.
- Other changes during this period include small increases in the availability of riboflavin, niacin and iron, probably due to the increase in the apparent consumption of breakfast cereals, which are fortified with these nutrients. Both total energy available for consumption and the availability of vitamins A and C have fluctuated slightly between the 3 years ended 1968-69 and 1976-77. Of all the nutrients examined,

the apparent level of vegetable protein intake has undergone the sharpest decline, from 40.3g per head per day to 31.5g.

Related publications

Users may also wish to refer to the following major publications which are available on request:

Apparent Consumption of Tea and Coffee (4307.0)

Crop Statistics (7302.0)

Dairying and Dairy Products (7209.0)

Fisheries (7603.0)

Fruit Statistics (7303.0)

Manufacturing Commodities

Selected Principal Articles Produced

Preliminary (8365.0)

Principal Articles Produced (8303.0)

Meat Statistics (7206.0)

Overseas Trade

Part 1: Exports and Imports (5409.0)

Part 2: Comparative and Summary Tables
(5410.0)

Production Bulletin No.3. Food, Drink and Tobacco
(8359.0)

All publications produced by the ABS are listed in *Catalogue of Publications* (1101.0) which is available free of charge from any ABS office.

Symbols and other usages

- n.a. not available
- p preliminary — figures or series subject to revision
- .. not applicable
- nil or less than half the final digit shown
- n.e.i. not elsewhere included
- n.y.a. not yet available

Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

R. J. CAMERON
Australian Statistician

I. SUPPLY AND UTILISATION OF FOODSTUFFS

In general, the method employed in this publication to estimate consumption in Australia of each of the various foodstuffs is as follows:

Apparent consumption = (Commercial production + Estimated home production + Imports + Opening stocks) minus (Exports + Ships' and aircraft stores + Usage for processed food + Non-food usage + Wastage + Closing stocks).

Consumption per head = Apparent consumption divided by the mean population for that period.

There are four significant factors which should be noted in regard to the estimates of consumption:

1. **Consumption.** Because of qualifications in respect of stocks and wastage (described below), the term "consumption" is used in a specialised sense, since the quantities actually measured are broadly the quantities available for consumption at a particular level in the process of distribution, i.e. ex-market, ex-store or ex-factory, depending on the method of marketing and/or processing. It is considered that in most cases these foodstuffs will find their way to the ultimate individual consumers with a minimum time lag. The figures therefore represent fairly accurately total consumption, as defined above, in the year to which they relate.

The general consumption equation is not used in those instances where certain components of the equation are not available, or where a more appropriate technique of estimating consumption is available. In this publication the equation is not used for rice, bread, butter, beer, wine and spirits.

2. **Commercial production and estimated home production.** Available production statistics are confined mainly to commercial production and are deficient for the purposes of the calculation to the extent of production by householders for their own use. This applies particularly in the case of vegetables, fruit, eggs, poultry and fish. However, in all these cases estimates of non-commercial production have been included, based on somewhat inadequate information obtained from a household expenditure survey conducted in 1944 and other investigations conducted by government departments during the 1939-45 War.

3. **Stocks.** Statistics of stocks refer to in-store (i.e. those held by marketing authorities) and factory stocks. With minor exceptions no details are available of wholesalers', retailers' or householders' stocks. For perishable commodities this point is of little importance since the very nature of the commodity precludes the accumulation of stocks. This is not the case, however, with non-perishable foods, and estimates derived for consumption of such foodstuffs for individual years may not state the position correctly with regard to

consumption as ordinarily understood, i.e. foodstuffs consumed by the individual. This difficulty is apparent particularly in the case of canned foodstuffs, where in some years it has been necessary to initiate special enquiries from the trade and other informed sources in an endeavour to take better account of these deficiencies.

4. **Wastage.** In many cases, allowance is not made for wastage before the foodstuffs are consumed. The importance of this factor is difficult to estimate, but in some seasons gluts cause considerable destruction of perishable foodstuffs, and it should therefore be taken into account when using these statistics. The effect of ignoring wastage is ultimately to overstate the consumption figures. In recent years, however, it is likely that there has been less wastage of foodstuffs than previously, because of more efficient methods of distribution and storage (including refrigerated transport, air freight and household refrigeration).

Additional information. Additional information related to some of the individual food groups in Tables 1, 2 and 3 are set out below:

Nuts. Formerly this section contained details on pulse and nuts. However, due to a lack of adequate information estimates on consumption of dried pulse and cocoa have not been calculated in recent years.

Vegetables. All vegetables are shown in terms of fresh or fresh equivalent, that is, the statistics in effect relate to the pre-processing stage. For example, the consumption of tomatoes includes fresh tomatoes consumed plus the fresh equivalent of tomatoes consumed as tomato products (canned tomatoes, tomato juice, etc.). Stocks, imports, and exports, of processed tomatoes are converted to fresh equivalent for this purpose.

Meat. Owing to diverse cutting practices by butchers in Australia and because of the difficulty of clearly defining the term "retail weight of meat", it is considered impracticable to derive a satisfactory factor for the purpose of expressing estimated meat consumption in terms of retail weight. Depending on cutting practices employed and whether or not bones, etc., sold to customers are included in retail weight of meat, the retail weight as a proportion of carcass weight ranges from about 60 per cent to 75 per cent for beef, from 80 per cent to 95 per cent for mutton and lamb and from 90 per cent to 95 per cent for pork. For this reason apparent consumption of carcass meat is expressed in terms of carcass weight.

Eggs and egg products. The production of eggs shown in Tables 2 and 3 is based on Egg Boards' records of output from areas under their control, plus estimates of production for uncontrolled areas and for "back-yard" poultry keepers based on information obtained from other sources. Because of the inadequacy of data

covering the volume of uncontrolled production, the figures should be used with some reserve.

Advances in poultry technology have resulted in a gradual increase in the average weight of eggs produced. For statistical purposes, the average weight of an egg was increased in 1960-61 from 49.6g to 56.7g. Although the increase in average weight actually occurred over a period of years, no adjustment has been made to 1959-60 and earlier years.

Fish. For the purpose of estimating supplies of fish available for consumption, in this publication, an allowance of 10 per cent of commercial production has

been made for the non-commercial catch of fish. No such allowances have been made for crustacea or molluscs as it is considered that the non-commercial take is not significant.

Oils and fats (including butter). In assessing consumption of all oils and fats no allowance is made for fats consumed in association with carcass meat. The quantities of carcass meat shown in Tables 2 and 3 include fats which remain in the carcass after slaughtering and which may or may not be subsequently removed for boiling down, etc., prior to retailing of the meat. No duplication occurs for fats removed from the carcass at the slaughtering stage.

TABLE 1. APPARENT CONSUMPTION OF CERTAIN FOODSTUFFS: AUSTRALIA
(kg per head per year, except where otherwise stated)

	Average 3 years ended				1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
	1938-39	1948-49	1958-59	1968-69						
GRAIN PRODUCTS -										
Flour (a)	84.9	91.6	82.3	77.4	76.4	73.8	76.8	74.2	73.9	72.8
Table rice	1.8	0.4	n.a.	1.9	1.8	2.2	2.0	2.4	2.4	2.4
Breakfast foods	4.8	6.1	6.2	6.8	6.1	6.7	6.6	6.6	7.1	7.9
Total	92.5	98.6	n.a.	86.8	84.4	82.9	85.7	83.2	83.6	83.1
Bread (900g loaves)(a)	55.1	71.1	76.7	66.1	56.6	57.2	56.2	54.2	54.8	n.y.a.
SUGAR -										
As refined sugar	32.0	31.2	27.0	31.0	20.1	20.5	17.4	16.7	16.1	15.2
In manufactured foods	16.3	23.1	23.6	27.7	29.4	29.6	31.9	32.4	35.0	34.4
Total (b)	50.8	56.8	53.0	51.9	n.a.	n.a.	54.4	53.7	55.6	53.7
NUTS (c) -										
Peanuts	0.4	1.1	0.8	1.2	n.a.	1.2	0.9	0.8	1.3	n.y.a.
Tree nuts	0.4	0.6	0.7	0.9	1.0	1.0	1.1	1.1	1.2	1.2
Total	0.8	1.7	1.5	2.1	n.a.	2.1	1.9	1.9	2.5	n.y.a.
VEGETABLES -										
White potatoes	47.1	56.3	51.7	53.7	56.6	47.9	45.5	51.7	46.6	48.9
Other root and bulb vegetables (d)	n.a.	19.1	15.9	17.1	17.1	16.7	17.5	17.7	15.9	16.0
Tomatoes	7.1	11.5	13.0	14.2	14.6	16.9	14.9	10.1	14.3	14.6
Leafy and green vegetables	n.a.	20.5	17.9	21.3	21.4	20.0	21.0	21.6	23.0	22.4
Other vegetables (d)	n.a.	22.3	18.6	18.1	17.5	14.9	15.0	15.1	14.4	14.9
Total (fresh equivalent weight)	n.a.	129.7	117.1	124.3	127.4	116.4	113.8	116.2	114.3	116.7
FRUIT AND FRUIT PRODUCTS -										
Fresh fruit (incl. fruit for fruit juice) -										
Citrus	14.5	16.9	16.1	22.5	27.3	30.1	31.3	36.7	39.6	32.8
Other	42.6	39.5	35.6	40.8	41.9	35.7	33.5	32.7	33.3	33.3
Jams, conserves, etc.	5.2	5.6	3.9	3.3	2.9	2.5	2.2	2.5	1.9	2.0
Dried fruit	3.8	3.9	2.8	2.5	2.3	2.3	1.8	2.2	2.2	2.0
Canned and bottled fruit	3.5	3.4	6.0	9.9	9.4	10.3	10.2	10.1	9.7	10.1
Total (fresh fruit equivalent)	78.7	80.9	72.2	86.5	93.0	90.1	89.4	91.2	95.7	88.5
MEAT -										
Carcass meat -										
Beef and veal	63.6	49.5	56.2	40.0	39.2	40.1	41.1	64.3	68.6	69.7
Lamb	6.8	11.4	13.3	20.5	24.1	18.5	18.4	17.7	16.7	13.4
Mutton	27.2	20.5	23.1	18.8	20.1	15.7	8.6	9.0	7.5	4.3
Pigmeat	3.9	3.2	4.6	6.7	6.8	7.7	6.7	5.1	4.4	4.4
Total carcass meat	101.5	84.6	97.2	85.9	90.2	82.1	71.9	96.2	97.3	91.9
Offal and meat n.e.i.	3.8	4.0	5.2	5.1	5.9	5.7	4.4	5.2	5.9	6.2
Canned meat (canned weight)	1.0	1.2	1.9	2.2	2.5	2.5	2.4	2.3	1.7	1.7
Bacon and ham (cured carcass weight)(e)	4.6	5.3	3.2	3.6	4.9	5.4	5.4	4.9	5.2	5.5
Total (converted to carcass equivalent weight)	118.5	103.0	112.4	98.8	105.8	98.6	86.7	111.1	112.3	107.7
Poultry (dressed weight)	n.a.	n.a.	n.a.	8.3	12.6	13.1	13.6	13.6	14.5	15.8

(a) Flour used for bread making is included in the item "Flour". (b) Includes the sugar content of syrups, honey and glucose. (c) Kernel equivalent weight. (d) Sweet potatoes included with "Other Root and Bulb Vegetables" since 1968-69; formerly included with "Other Vegetables". (e) Excludes canned.

TABLE 1. APPARENT CONSUMPTION OF CERTAIN FOODSTUFFS: AUSTRALIA - *continued*
(kg per head per year, except where otherwise stated)

	Average 3 years ended									
	1938-39	1948-49	1958-59	1968-69	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
EGGS AND EGG PRODUCTS -										
Total	12.1	12.7	10.2	12.6	12.3	12.4	12.4	12.4	12.4	12.4
Equivalent number of eggs	243	255	206	222	218	218	219	219	219	219
SEAFOOD -										
Fresh and frozen (edible weight) -										
Fish -										
Australian	}	2.7	2.4	{	1.4	1.4	1.7	2.0	1.3	1.5
Imported										
Crustacea and molluscs										
Canned (canned weight) -										
Australian	}	1.9	1.4	{	0.4	0.4	0.5	0.3	0.7	0.5
Imported										
Cured (product weight) (a)	n.a.	n.a.	n.a.	n.a.	n.a.	0.9	1.1	0.9	1.0	1.4
Total seafood	4.9	4.1	4.5	5.6	5.8	6.2	7.7	6.4	6.6	7.0
MILK AND MILK PRODUCTS -										
Fluid whole milk (litres)	106.4	138.7	128.7	128.2	119.8	120.6	114.5	106.6	101.1	104.8
Condensed, concentrated and evaporated milk -										
Full cream -										
Sweetened	}	2.0	{	1.6	1.2	0.9	0.8	0.9	1.1	0.8
Unsweetened (b)										
Skim	n.a.	n.a.	0.6	0.7	0.9	0.9	0.8	0.8	1.5	1.6
Powdered milk -										
Full cream	1.2	1.5	1.1	0.8	1.0	1.3	1.2	1.2	1.4	1.6
Skim (incl. buttermilk and mixed skim and buttermilk)	0.3	0.3	1.1	4.3	4.3	4.7	3.8	4.2	3.8	2.0
Infants' and invalids' food	0.5	0.6	1.0	1.3	1.7	1.4	1.5	2.1	1.4	1.1
Cheese (natural equivalent weight) (c)	2.0	2.5	2.6	3.5	4.5	5.1	5.3	5.2	5.7	5.3
Total (converted to milk solids, fat and non-fat) (d)	17.8	22.3	22.1	25.4	25.4	26.2	24.6	24.1	23.6	22.3
OILS AND FATS -										
Butter	14.9	11.2	12.3	9.8	8.6	8.2	7.7	7.2	6.8	5.8
Margarine -										
Table	0.4	0.4	n.a.	1.5	1.3	1.6	1.7	2.2	3.1	4.7
Other	1.8	2.4	2.2	3.4	4.0	4.0	3.8	3.8	3.9	3.5
Total (fat content) (e)	17.1	14.0	n.a.	14.3	13.7	13.6	13.4	13.2	13.6	13.9
BEVERAGES -										
Tea	3.1	2.9	2.7	2.3	2.1	2.0	1.9	2.0	1.9	2.0
Coffee (f)	0.3	0.5	0.6	1.2	1.4	1.2	1.4	1.1	1.5	1.8
Aerated and carbonated waters (litres)	n.a.	n.a.	n.a.	47.3	58.1	64.7	63.4	59.6	65.0	68.1
Beer (litres)	53.2	76.8	103.2	116.8	125.6	129.5	139.0	140.3	137.4	136.2
Wine (litres)	2.7	5.9	5.0	8.2	8.8	9.8	11.0	12.3	13.0	13.7
Spirits (litres alcohol)	0.5	0.8	0.8	0.9	1.1	1.2	1.2	1.2	1.1	1.3

(a) Comprises salted, dried, smoked and otherwise prepared seafood; included with "Fresh and Frozen" prior to 1972-73. (b) Included ice cream mix prior to 1971-72. (c) Combined product and natural equivalent weights prior to 1971-72. (d) Includes an allowance for estimated cream consumption. (e) Includes an estimate for vegetable oils and other fats. (f) Coffee and coffee products in terms of roasted coffee.

TABLE 2. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS : AUSTRALIA, 1975-76

	Supply					Utilisation			
	Production				Total supply	Exports (incl. ships' stores)	Non-food use, waste, seed, etc.	For processed food	Apparent consumption in Australia as human food
	Net change in stocks	Commercial	Estimated home production	Imports					
					— tonnes —				kg
GRAIN PRODUCTS —									
Flour (a)	(-)-4,939	1,245,214	..	110	1,250,263	227,640	..	..	1,022,623
Table rice (b)	..	..	..	463	..	..	..	..	(c)33,485
Breakfast foods —									
Oatmeal and rolled oats	(-)-685	13,545	..	—	14,230	10,692	..	..	3,538
Other (from grain)	(+)-148	104,625	..	317	104,794	9,542	..	..	95,252
Bread (a) (b)	..	..	..	929	- '000 900g loaves —	347	..	..	(d)759,108
					— tonnes —				kg
SUGAR —									
Sugar (e)	n.a.	2,738,486	..	8,977	n.a.	2,022,537	n.a.	n.a.	708,214
NUTS —									
Peanuts (in shell)	(-)-69	(f)30,523	n.a.	6,956	37,548	2,949	..	7,230	27,369
Tree nuts (in shell)	n.a.	1,976	n.a.	44,159	46,135	137	..	..	45,998
VEGETABLES (fresh equivalent weight) —									
White potatoes	n.a.	696,487	25,400	1,727	723,614	10,963	67,663	..	644,988
Other root and bulb vegetables —									
Beetroot	(-)-444	24,772	1,239	—	26,455	126	495	..	25,834
Carrots	(-)-423	81,386	4,069	—	85,878	2,308	2,442	..	81,128
Onions	(-)-3,314	94,553	4,728	2,327	104,922	7,425	2,837	..	94,660
Parsnips	n.a.	8,076	404	—	8,480	62	162	..	8,256
Sweet potatoes	n.a.	2,858	n.a.	—	2,858	—	—	..	2,858
White turnips and swede	n.a.	8,337	250	—	8,587	311	167	..	8,109
Total	(-)-4,181	219,982	10,690	2,327	237,180	10,342	6,103	..	220,735
Tomatoes	(-)-28,349	162,151	16,215	3,263	209,978	3,178	8,108	..	198,692
Leafy and green (incl. legumes) —									
Beans	(-)-8,710	40,152	6,023	1,739	56,624	630	2,008	..	53,986
Cabbages and other greens	(-)-1199	75,891	3,794	—	79,884	1,081	3,794	..	75,009
Celery	n.a.	20,322	1,016	—	21,338	48	1,016	..	20,274
Lettuce	n.a.	39,511	3,951	—	43,462	779	2,766	..	39,917
Peas	(-)-16,486	101,103	15,165	5,471	138,225	1,021	8,088	..	129,116
Total	(-)-25,395	276,979	29,949	7,210	339,533	3,559	17,672	..	318,302
Other vegetables —									
Asparagus	(-)-244	4,629	n.a.	3,333	8,206	175	—	..	8,031
Cauliflowers	—	70,505	3,525	—	74,030	1,477	4,935	..	67,618
Cucumbers (incl. gherkins)	(-)-798	12,820	641	278	14,537	48	385	..	14,104
Marrows and squashes	n.a.	3,944	197	—	4,141	48	—	..	4,093
Pumpkins	n.a.	59,048	2,952	—	62,000	48	—	..	61,952
Sweet corn	(-)-1,504	26,341	1,317	—	29,162	116	—	..	29,046
Other	(+)-1,921	n.a.	n.a.	16,477	14,556	—	—	..	14,556
Total	(-)-625	177,287	8,632	20,088	206,632	1,912	5,320	..	199,400
Total all vegetables	(-)-58,550	1,532,886	90,886	34,615	1,716,937	29,943	104,866	..	1,582,128

TABLE 2. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS : AUSTRALIA, 1975-76 - continued

	Supply				Utilisation				Apparent consumption in Australia as human food	
	Production			Imports	Total supply	Exports (incl. ships' stores)	Non-food use, waste, seed, etc.	For processed food	Total	Per head per year
	Net change in stocks	Commercial	Estimated home production							
					— tonnes —					kg
FRUIT AND FRUIT PRODUCTS —										
Fresh fruit (incl. fruit for fruit juice) —										
Oranges	..	361,522	18,076	107,429	487,027	16,394	7,230	—	463,403	33.5
Other citrus fruit	..	82,152	4,108	5,458	91,718	6,233	n.a.	—	85,485	6.2
Fresh fruit	(g) (-)23,707	797,493	15,000	8,074	844,274	101,456	n.a.	282,360	460,458	33.3
Jams, conserves, etc	(+)3,985	31,036	1,000	1,127	29,178	2,329	..	..	26,849	1.9
Dried vine fruit —										
Currants	(+)488	6,317	—	9	5,838	2,421	..	..	(h)3,417	0.2
Raisins	(+)734	5,201	—	6	4,473	1,150	..	..	(h)3,323	0.2
Sultanas	(-)12,150	53,382	—	32	65,564	49,742	..	..	(h)15,822	1.1
Dried tree fruit (i) —										
Apricots	(+)55	714	—	253	912	225	..	..	687	—
Prunes	(-)1,766	3,102	—	280	5,148	93	..	..	5,055	0.4
Other	(-)287	302	—	1,347	1,936	443	..	..	1,493	0.1
Canned and bottled fruit —										
Apples	(-)1,174	12,522	—	—	13,696	337	..	..	13,359	1.0
Apricots	(-)1,394	9,423	150	—	10,967	2,349	..	..	8,618	0.6
Fruit salad	(-)5,657	27,603	—	—	33,260	14,197	..	..	19,063	1.4
Peaches	(-)164	55,140	150	—	55,454	33,937	..	..	21,517	1.6
Pears	(-)7,001	37,941	100	—	45,042	28,642	..	..	16,400	1.2
Pineapples	(+)2,274	38,185	100	—	36,011	3,267	..	..	32,744	2.4
Other	(-)151	5,930	—	16,902	22,983	312	..	..	22,671	1.6
MEAT —										
Carcass meat (j) —										
Beef and veal	(+)29,381	1,840,415	—	214	1,811,248	807,421	..	53,520	950,307	68.6
Lamb	(+)1,597	262,171	—	23	260,597	28,878	..	..	231,719	16.7
Mutton	(+)11,145	325,549	—	—	314,404	202,364	..	8,414	103,626	7.5
Pigmeat	(+)693	173,825	—	—	173,132	5,462	..	106,679	60,991	4.4
Total carcass meat	(+)42,816	2,601,960	—	237	2,559,381	1,044,125	..	168,613	1,346,643	97.3
Offal and meat n.e.i. (j)	(+)1,476	137,830	—	418	136,772	51,673	3,000	..	82,099	5.9
Canned meat (canned weight)	(-)207	43,071	—	404	43,682	20,570	..	..	23,112	1.7
Bacon and ham (cured carcass weight)	(-)445	77,303	—	—	77,748	386	..	5,803	71,559	5.2
Total meat (carcass equivalent weight)	(+)43,266	2,739,790	—	1,224	2,697,748	1,139,950	3,000	..	1,554,798	112.3
Poultry (dressed weight)	(+)1,096	204,174	3,139	164	206,381	5,010	..	..	201,371	14.5

TABLE 2. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS: AUSTRALIA, 1975-76 - continued

	Supply					Utilisation				Apparent consumption in Australia as human food	
	Net change in stocks	Production			Total supply	Exports (incl. ships' stores)	Non-food use, waste, etc.	For processed food	Total	Per head per year	
		Commercial	Estimated home production	Imports							
					- tonnes -					kg	
EGGS AND EGG PRODUCTS (k) - Total (eggs in shell weight)	(-)7,088	128,448	67,514	261	207,311	30,086	929	..	172,296	12.4	
SEAFOOD -											
Fresh and frozen (edible weight) -											
Fish											
Australian	..	27,487	2,749	..	30,236	1,473	n.a.	8,034	20,729	1.5	
Imported	..	..	..	22,957	22,957	123	n.a.	..	22,834	1.6	
Crustacea and molluscs	..	23,350	-	1,217	24,567	9,904	n.a.	1,032	13,631	1.0	
Canned (canned weight) -											
Australian	(-)2,020	9,066	-	..	11,086 ^{2/3}	1,766	..	..	9,320	0.7	
Imported	..	..	..	10,626	10,626	380	..	..	10,246	0.7	
Cured (product weight) (l)	n.a.	n.a.	-	14,537	14,537	81	..	..	14,456	1.0	
					- '000 litres -					litre	
MILK AND MILK PRODUCTS -											
Fluid whole milk	..	6,248,245	-	-	6,248,245	7,948	..	4,839,781	1,400,516	101.1	
					- tonnes -					kg	
Cream	..	12,575	..	..	12,575	..	..	..	12,575	0.9	
Condensed, concentrated and evaporated milk -											
Full cream -											
Sweetened	(-)1,911	17,969	-	19	19,899	5,325	..	..	14,574	1.1	
Unsweetened	(+)1,623	35,715	-	-	34,092	2,701	..	..	31,391	2.3	
Skim	(+)3	21,119	-	-	21,116	-	..	..	21,116	1.5	
Powdered milk -											
Full cream	(-)359	41,956	-	720	43,035	23,966	..	..	19,069	1.4	
Skim (incl. buttermilk and mixed skim and buttermilk)	(+)5,515	159,719	-	-	154,204	101,115	..	..	53,089	3.8	
Infants' and invalids' food	(-)284	27,222	-	2,652	30,158	10,191	..	..	19,967	1.4	
Cheese (natural equivalent weight) (m)	(+)13,067	112,617	2,743	9,271	111,564	32,370	..	..	79,194	5.7	

TABLE 2. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS : AUSTRALIA, 1975-76 - continued

	Supply					Utilisation				
	Production				Total supply	Exports (incl. ships' stores)	Non-food use, waste, etc.	For processed food	Apparent consumption in Australia as human food	
	Net change in stocks	Commercial	Estimated home production	Imports					Total	Per head per year
					— tonnes —					kg
OILS AND FATS —										
Butter (b)	..	..	..	—	..	..	..	..	(n)93,475	6.8
Margarine — Table	(+)474	43,211	—	—	42,737	231	..	..	42,506	3.1
Other	(+)48	55,900	—	25	55,877	1,911	..	..	53,966	3.9
BEVERAGES —										
Tea	(-)600	—	—	(o)26,286	26,886	629	..	..	26,257	1.9
Coffee	(-)1,621	—	—	(o)21,840	23,461	2,694	..	..	20,767	1.5
					— '000 litres —					litres
Aerated and carbonated waters	n.a.	912,185	n.a.	504	912,689	12,121	..	..	900,568	65.0
Beer (b)	..	..	..	(o)1,363	..	..	..	..	(p)1,901,979	137.4
Wine (b)	..	..	..	(o)6,247	..	..	..	..	(q)180,087	13.0
					— '000 litres alcohol —					1. alcohol
Spirits (b)	..	..	..	(o)9,170	..	..	..	..	(r)15,899	1.1

(a) Flour used for bread making is included in the item "Flour". (b) The general consumption equation has not been used for this item. See paragraph 1, page 4. (c) Comprises output from mills for domestic consumption and imports. (d) Comprises sales and transfers out, adjusted for imports and exports. (e) Includes estimated sugar content of manufactured foods: excludes syrups, honey and glucose. (f) Receipts by the Queensland Peanut Marketing Board. (g) Cold store stocks of apples and pears. (h) Comprises Australian deliveries, year ended 30 June, as recorded by the Australian Dried Fruits Association (ADFA), and cold store stocks of apples and pears obtained from ADFA. (i) Includes butter, margarine, lard, ghee, etc. (j) Includes butter, margarine, lard, ghee, etc. (k) Includes butter, margarine, lard, ghee, etc. (l) Comprises butter, margarine, lard, ghee, etc. prepared. (m) Stocks and exports obtained from the Australian Dairy Corporation. (n) Includes butter equivalent of butter oil, butter concentrate and ghee. Comprises domestic sales as recorded by the Commonwealth Dairy Produce Equalisation Committee Ltd. (o) Imports cleared for home consumption. (p) Comprises the quantity of beer removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (q) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (r) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (s) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (t) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (u) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (v) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (w) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (x) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (y) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (z) Comprises the quantity of spirits removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption.

TABLE 3. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS : AUSTRALIA, 1976-77

	Supply				Utilisation				Apparent consumption in Australia as human food	
	Production				Exports (incl. ships' stores)	Non-food use, waste, seed, etc.	For processed food	Total	Per head per year	
	Net change in stocks	Commercial	Estimated home production	Imports						
					— tonnes —					kg
GRAIN PRODUCTS —										
Flour (a)	(-)-3,496	1,183,181	..	4,547	1,191,224	172,653	..	1,018,571	72.8	
Table rice (b)	..	..	..	1,290	..	..	..	(c)33,328	2.4	
Breakfast foods —										
Oatmeal and rolled oats	(+)420	13,412	..	—	12,992	5,108	..	7,884	0.6	
Other (from grain)	(-)-138	108,827	..	319	109,284	6,499	..	102,785	7.3	
					— '000 900g. loaves —			n.y.a.	n.y.a.	number
Bread (a)	..	..	..	1,281	..	336	..	n.y.a.	n.y.a.	
					— tonnes —					kg
SUGAR										
Sugar (d)	n.a.	3,285,336	..	21,821	n.a.	2,585,116	n.a.	693,978	49.6	
NUTS —										
Peanuts (in shell)	(-)-4,153	(e)27,645	n.a.	112	31,910	6,318	..	n.y.a.	n.y.a.	
Tree nuts (in shell)	n.a.	2,092	n.a.	42,309	44,401	40	..	44,361	3.2	
VEGETABLES (fresh equivalent weight) —										
White potatoes	n.a.	728,494	25,400	2,483	756,377	4,851	67,740	683,786	48.9	
Other root and bulb vegetables —										
Beetroot	(-)-1,351	25,790	1,290	—	28,431	113	516	27,802	2.0	
Carrots	(-)-402	85,624	4,281	429	90,736	2,669	5,569	85,498	6.1	
Onions	(-)-349	105,298	5,265	269	111,181	15,764	3,159	92,258	6.6	
Fennel	n.a.	8,972	449	—	9,421	56	179	9,186	0.7	
Sweet potatoes	n.a.	2,896	n.a.	—	2,896	—	—	2,896	0.2	
White turnips and swede	n.a.	6,688	201	—	6,889	281	134	6,474	0.5	
Total	(-)-2,102	235,268	11,486	698	249,554	18,883	6,557	224,114	16.0	
Tomatoes	(-)-5,744	178,071	17,807	6,651	208,273	3,177	890	204,206	14.6	
Leafy and green (incl. legumes) —										
Beans	(-)-1,359	36,338	5,451	1,946	45,094	453	1,817	42,824	3.1	
Cabbages and other greens	(+)-112	75,947	3,797	—	79,632	971	3,797	74,864	5.4	
Celery	n.a.	20,675	1,034	—	21,709	42	1,034	20,633	1.5	
Lettuce	n.a.	47,436	4,744	—	52,180	283	3,321	48,576	3.5	
Peas	(+)-26,354	137,674	20,651	8,642	140,613	3,646	11,014	125,953	9.0	
Total	(+)-25,107	318,070	35,677	10,588	339,228	5,395	20,983	312,850	22.4	
Other vegetables —										
Asparagus	(-)-73	4,414	n.a.	2,586	7,073	186	—	6,887	0.5	
Cauliflowers	(+)-5	70,821	3,541	—	74,357	1,674	4,957	67,726	4.8	
Cucumbers (incl. gherkins)	(+)-546	14,171	709	349	14,683	42	425	14,216	1.0	
Marrows and squashes	n.a.	3,851	193	—	4,044	42	—	4,002	0.3	
Pumpkins	n.a.	68,307	3,415	—	71,722	42	—	71,680	5.1	
Sweet corn	(-)-12,098	24,006	1,200	—	27,304	86	—	27,218	1.9	
Other	(+)-877	n.a.	n.a.	17,736	16,859	—	—	16,859	1.2	
Total	(-)-743	185,570	9,058	20,671	216,042	2,072	5,382	208,588	14.9	
Total all vegetables	(+)-16,518	1,645,473	99,428	41,091	1,769,474	34,378	101,552	1,633,544	116.7	

TABLE 3. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS: AUSTRALIA, 1976-77 - continued

	Supply					Utilisation			
	Net change in stocks	Production			Total supply	Exports (incl. ships' stores)	Non-food use, waste, seed, etc.	For pro- cessed food	Apparent consumption in Australia as human food
		Commercial	Estimated home production	Imports					
					- tonnes -				kg
FRUIT AND FRUIT PRODUCTS -									
Fresh fruit (incl. fruit for fruit juice) -									
Oranges	..	321,674	16,084	51,615	389,373	16,809	6,433	-	366,131
Other citrus fruit	..	88,476	4,424	10,887	103,787	11,151	n.a.	-	92,636
Fresh fruit	(f)(+31,299	800,025	15,000	15,908	799,634	64,854	n.a.	269,191	465,589
Jams, preserves, etc	(-2,855	26,998	1,000	1,498	32,351	4,006	..	..	28,345
Dried vine fruit -									
Currants	(+1,634	6,075	-	47	4,488	961	..	..	(g)3,527
Raisins	(+259	4,894	-	33	4,668	1,944	..	..	(g)2,724
Sultanas	(-7,054	49,630	-	167	56,851	41,457	..	..	(g)15,394
Dried tree fruit (h) -									
Apricots	(+355	1,113	-	313	1,071	345	..	..	726
Prunes	(+2,190	2,890	-	171	871	599	..	..	272
Other	(+2	230	-	4,786	5,014	350	..	..	4,664
Canned and bottled fruit -									
Apples	(-8,709	12,808	-	-	21,517	631	..	..	20,886
Apricots	(+1,848	13,090	150	-	11,392	1,909	..	..	9,483
Fruit salad	(-4,202	27,339	-	-	31,541	15,294	..	..	16,247
Peaches	(-11,888	53,040	150	-	65,078	36,645	..	..	28,433
Pineapples	n.a.	n.a.	100	-	35,069	3,220	..	..	31,849
Other	n.a.	n.a.	100	28,169	78,219	44,165	..	..	34,054
MEAT -									
Carcass meat (i) -									
Beef and veal	(+385	1,987,777	-	1,162	1,988,554	947,535	..	65,108	975,911
Lamb	(-32,124	245,549	-	13	247,686	59,766	..	..	187,920
Mutton	(-9,802	303,712	-	2	313,516	242,549	..	10,374	60,593
Pigmeat	(+605	185,083	-	-	184,478	3,426	..	119,536	61,516
Total carcass meat	(-10,935	2,722,121	-	1,177	2,734,234	1,253,276	..	195,018	1,285,940
Offal and meat n.e.i. (i)	(+374	148,350	-	594	148,570	58,126	3,000	..	87,444
Canned meat (canned weight)	(-957	52,424	-	497	53,878	29,890	..	..	23,988
Bacon and ham (cured carcass weight)	(+391	85,467	-	-	85,076	340	..	7,322	74,414
Total meat (carcass equivalent weight)	(-11,598	2,870,471	-	2,289	2,884,358	1,374,110	3,000	..	1,507,248
Poultry (dressed weight)	(-4,504	218,215	3,172	337	226,228	4,681	..	..	221,547

TABLE 3. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS : AUSTRALIA, 1976-77 - continued

	Supply					Utilisation			Apparent consumption in Australia as human food	
	Production				Total supply	Exports (incl. ships' stores)	Non-food use, waste, etc.	For processed food	Total	Per head per year
	Net change in stocks	Commercial	Estimated home production	Imports						
					- tonnes -					kg
EGGS AND EGG PRODUCTS (j) - Total (eggs in shell weight)	(-)3,397	127,645	65,016	-	196,058	21,804	774	..	173,480	12.4
SEAFOOD -										
Fresh and frozen (edible weight) -										
Fish -										
Australian	..	29,627	2,963	..	32,590	5,206	n.a.	6,899	20,485	1.5
Imported	..	..	..	23,051	23,051	113	n.a.	..	22,938	1.6
Crustacea and molluscs	..	25,254	-	1,259	26,513	12,294	n.a.	1,400	12,819	0.9
Canned (canned weight) -										
Australian	n.a.	n.a.	-	..	8,751	2,036	..	..	6,715	0.5
Imported	..	..	..	15,108	15,108	145	..	..	14,963	1.1
Cured (product weight) (k)	n.a.	n.a.	-	19,406	19,479	93	..	..	19,386	1.4
					- '000 litres -					litre
MILK AND MILK PRODUCTS -										
Fluid whole milk	..	5,772,988	-	-	5,772,988	6,966	..	4,299,425	1,466,597	104.8
					- tonnes -					kg
Cream	..	12,707	..	..	12,707	..	..	..	12,707	0.9
Condensed, concentrated and evaporated milk -										
Full cream -										
Sweetened	(+)1,364	19,081	-	69	17,786	6,181	..	..	11,605	0.8
Unsweetened	(+)714	38,501	-	-	38,287	2,179	..	..	36,108	2.6
Skim	(+)8	22,255	-	-	22,247	-	..	..	22,247	1.6
Powdered milk -										
Full cream	(-)455	58,634	-	771	59,860	37,385	..	..	22,475	1.6
Skim (incl. buttermilk and mixed skim and buttermilk)	(-)48,128	105,450	-	-	153,578	125,418	..	..	28,160	2.0
Infants' and invalids' food	(-)373	26,811	-	371	29,555	13,700	..	..	15,855	1.1
Cheese (natural equivalent weight) (l)	(-)7,905	103,549	2,743	10,184	124,381	50,189	..	..	74,192	5.3
OILS AND FATS -										
Butter (b)	..	..	..	459	..	..	..	..	(m)81,115	5.8
Margarine - Table	(+)1,164	67,765	-	-	66,601	363	..	..	66,238	4.7
Other	(-)299	50,484	-	7	50,790	2,204	..	..	48,586	3.5

TABLE 3. ESTIMATED SUPPLY AND UTILISATION OF FOODSTUFFS: AUSTRALIA, 1976-77 - continued

	Supply					Utilisation				
	Net change in stocks	Production			Total supply	Exports (incl. ships' stores)	Non-food use, waste, etc.	For pro- cessed food	Apparent consumption in Australia as human food	
		Commercial	Estimated home production	Imports					Total	Per head per year
									kg	
					- tonnes -					
BEVERAGES -										
Tea	(n)(-)360	-	-	(o)27,525	27,885	503	..	..	27,382	2.0
Coffee	(-)2,764	-	-	(o)25,751	28,515	3,432	..	..	25,083	1.8
										litres
					- '000 litres -					
Aerated and carbonated waters	n.a.	965,399	n.a.	1,359	966,758	13,623	..	..	953,135	68.1
Beer (b)	..	..	..	(o)1,231	..	..	..	..	(p)1,905,282	136.2
Wine (b) -	..	..	..	(o)	..	..	..	..	(q)	
Desert wine	..	..	..	201	..	..	..	..	19,769	1.4
Sherry	..	..	..	50	..	..	..	..	30,692	2.2
Sparkling and carbonated wine	..	..	..	1,916	..	..	..	..	24,603	1.8
Table wine	..	..	..	4,629	..	..	..	..	105,910	7.6
Vermouth	..	..	..	603	..	..	..	..	7,292	0.5
Other wine n.e.i.	..	..	..	126	..	..	..	..	2,812	0.2
Total	..	..	..	7,525	..	..	..	..	191,078	13.7
										Licohol
					- '000 litres alcohol -					
Spirits (b) -				(o)					(r)	
Brandy	..	..	..	693	..	..	..	..	3,448	0.3
Gin	..	..	..	506	..	..	..	..	1,237	0.1
Liqueurs (incl. flavoured spirits)	..	..	..	1,191	..	..	..	..	1,732	0.1
Rum	..	..	..	1,111	..	..	..	..	2,640	0.2
Vodka	..	..	..	104	..	..	..	..	864	0.1
Whisky	..	..	..	6,988	..	..	..	..	7,659	0.6
Other n.e.i. (incl. bitters)	..	..	..	134	..	..	..	..	144	-
Total	..	..	..	10,727	..	..	..	..	17,725	1.3

(a) Flour used for breadmaking is included in the item "Flour". (b) The general consumption equation has not been used for this item. See paragraph 1, page 4. (c) Comprises output from mills for domestic consumption and imports. (d) Includes estimated sugar content of manufactured foods; excludes syrups, honey and glucose. (e) Receipts by the Queensland Peanut Marketing Board. (f) Cold store stocks of apples and pears. (g) Comprises Australian deliveries, year ended 30 June, as recorded by the Australian Dried Fruits Association (ADFA). (h) Stocks and commercial production obtained from the ADFA. (i) Stocks held by the Australian Meat and Livestock Corporation. (j) Stocks held by Egg Boards. (k) Comprises salted, dried, smoked and otherwise prepared seafood. (l) Stocks obtained from the Australian Dairy Corporation. (m) Includes butter equivalent of butter oil, butter concentrate and ghee. Comprises imports and domestic sales as recorded by the Commonwealth Dairy Produce Equalisation Committee Ltd. (n) Adjusted to include Australian production. (o) Imports cleared for home consumption. (p) Comprises the quantity of beer removed (duty paid and duty free) for consumption in Australia and imports cleared for home consumption. (q) Comprises the quantity of wholesale sales of wine and imports cleared for home consumption. (r) Comprises the quantity of potable spirits upon which excise duty was paid and imports cleared for home consumption.

II. LEVEL OF NUTRIENT INTAKE

General notes. In order to determine whether the quantities of the various foodstuffs available for consumption are likely to be sufficient for adequate nutrition, it is necessary to calculate the amount of nutrients the foods provide.

The analysis in this section is based on the statistics collected by the Australian Statistician as set out elsewhere in this publication and is therefore subject to the same qualifications. See the Explanatory Notes for a statement of these qualifications.

The basis for the calculations of estimated supplies of nutrients available for consumption in Australia was changed after Bulletin No. 23 (1967-68) and is now dependent on conversion factors calculated from *Metric Tables of Composition of Australian Food* (Suey Thomas and Margaret Corden, A.G.P.S. Canberra, 1977). The previously used Tables, compiled by Anita Osmond and Winifred Wilson, 1954, have been revised and considerably enlarged and nutrient values for almost all food items altered in the light of improved analytical techniques. While comparison with figures published for previous years is no longer entirely valid, the differences in conversion factors are not so great as to negate the value of all such comparisons.

Following a recommendation of the joint FAO/WHO Expert Group which reported on the *Requirements of Vitamin A, Thiamine, Riboflavin and Niacin* (FAO Rome, 1967) the total vitamin A of the diet is now stated as micrograms of vitamin A (retinol) activity. Strict comparisons between vitamin A activity values published since 1968-69 cannot be made with previous values, since the values given for individual food items vary considerably in the food composition tables (1954 and 1977).

Nutrients available for consumption. Details of the estimated supplies of nutrients passing into consumption during the years 1974-75, 1975-76 and 1976-77 are shown in Table 4. Data for previous years and for other countries are given in Tables 7 and 10 respectively.

Losses due to processing have been allowed for by way of an adjustment to the conversion factors used for processed and preserved foods. No allowances have been made for losses of nutrients (other than vitamins) due to the effect of storage and cooking; losses of vitamins are referred to in the following paragraphs. The figures in Tables 7-9 are adjusted for losses of vitamins in cooking and for the additional niacin obtained from the metabolism of protein (see Table 5 for these adjustments).

Loss of vitamins in cooking. As a result of storage and cooking, certain foods, particularly fruit and vegetables, lose some of their nutritive value. Estimates of possible loss of vitamin C (ascorbic acid) and thiamin in cooking are set out in Table 5. Losses in cooking of other nutrients do occur but not in amounts likely to be significant. Losses due to storage have not been estimated.

Losses of vitamin C cover a wide range, from almost nil to 100 percent. On average, 60 percent of vitamin C in leafy green vegetables is lost through cooking, while losses for skinned potatoes, other vegetables and stewed fruit are approximately 50 percent. There is also a significant loss of thiamin in the cooking of meat and vegetables, the amount of loss depending on the method and duration of cooking. In a normal mixed diet it is accurate enough for statistical purposes to allow 15 per cent deduction from the total thiamin available. The estimates in Table 5 are calculated assuming average conditions and methods of cooking. Losses could be reduced to less than these figures by careful cooking. Losses from uncooked fruits and vegetables are assumed to be negligible.

TABLE 4. ESTIMATED NUTRIENTS AVAILABLE FOR CONSUMPTION IN EACH COMMODITY GROUP, UNADJUSTED : AUSTRALIA (a)
(Per head per day)

Commodity group	Protein (g)	Fat (g)	Carbo- hydrate (g)	Calcium (mg)	Iron (mg)	Vitamin A activity(b) (μ g)	Vitamin C (mg)	Thia- min (mg)	Ribo- flavin (mg)	Niacin (mg)	Energy	
											(kcal)	(kJ)
1974-75												
Grain products	25.00	3.80	175.16	48.76	4.59	2.72	—	0.76	0.53	5.73	842	3,535
Sugar	—	—	146.98	2.95	0.15	—	—	—	—	—	574	2,402
Vegetables	4.38	0.59	34.63	57.06	1.99	393.11	52.74	0.25	0.16	2.45	151	631
Fruit and fruit products	1.53	0.41	25.17	40.89	0.80	40.00	44.47	0.10	0.06	0.63	89	372
Meat (c)	36.08	53.37	0.36	23.25	5.68	473.26	2.52	0.26	0.60	9.11	646	2,705
Poultry	5.45	2.13	—	3.97	0.51	16.62	—	0.02	0.04	2.03	43	178
Eggs and egg products	3.60	3.35	0.21	15.56	0.69	81.60	—	0.03	0.01	0.03	46	193
Seafood	2.64	0.56	0.03	8.13	0.18	2.80	—	0.01	0.02	0.64	16	68
Milk and milk products (d)	21.84	20.66	25.43	748.20	0.53	231.73	3.52	0.14	0.99	0.52	383	1,601
Oils and fats (e)	0.24	35.29	0.27	6.53	0.02	299.14	—	0.01	0.01	—	315	1,318
Beverages (f)	1.08	—	11.18	16.87	0.07	—	—	0.02	0.71	0.59	209	873
Total	101.84	120.16	419.42	972.17	15.21	1,540.98	103.25	1.60	3.21	21.73	3,313	13,877
1975-76												
Grain products	24.39	3.71	171.55	47.88	4.55	2.79	—	0.75	0.53	5.73	827	3,460
Sugar	—	—	151.21	3.03	0.15	—	—	—	—	—	590	2,471
Vegetables	4.88	0.60	32.43	52.83	1.95	348.89	46.11	0.23	0.15	2.32	143	598
Fruit and fruit products	1.27	0.41	25.59	42.03	0.81	37.03	45.70	0.10	0.06	0.62	100	417
Meat (c)	38.13	54.17	0.41	24.90	6.14	543.45	2.90	0.25	0.65	9.45	656	2,744
Poultry	5.67	2.22	—	4.13	0.53	17.29	—	0.02	0.04	2.11	44	185
Eggs and egg products	3.61	3.35	0.20	15.59	0.69	81.82	—	0.03	0.08	0.02	46	194
Seafood	3.57	0.60	0.05	5.71	0.24	3.08	—	0.01	0.02	0.78	21	87
Milk and milk products (d)	20.48	19.82	23.19	701.05	0.51	224.04	3.25	0.13	0.90	0.47	360	1,506
Oils and fats (e)	0.24	36.08	0.27	6.77	0.02	300.38	—	—	—	—	322	1,347
Beverages (f)	1.05	—	10.73	16.63	0.07	—	—	0.01	0.68	0.56	202	845
Total	103.29	120.96	415.63	923.55	15.66	1,558.77	97.96	1.53	3.11	22.06	3,310	13,854
1976-77												
Grain products	24.23	3.71	170.47	48.00	4.67	3.04	—	0.78	0.57	5.95	821	3,438
Sugar	—	—	145.33	2.91	0.15	—	—	—	—	—	567	2,375
Vegetables	5.02	0.56	33.74	53.80	2.01	366.77	46.95	0.15	0.15	2.40	148	619
Fruit and fruit products	1.15	0.38	23.81	36.73	0.75	33.68	39.20	0.06	0.06	0.57	92	387
Meat (c)	36.96	51.73	0.41	24.27	6.05	554.03	2.95	0.25	0.63	9.07	636	2,661
Poultry	6.20	2.42	—	4.51	0.58	18.89	—	0.05	0.05	2.31	48	202
Eggs and egg products	3.60	3.34	0.20	15.55	0.69	81.60	—	0.08	0.08	0.02	46	193
Seafood	3.47	0.66	0.04	10.05	0.23	3.38	—	0.02	0.02	0.73	21	87
Milk and milk products (d)	18.80	19.84	21.24	644.50	0.49	223.47	3.36	0.83	0.83	0.44	345	1,445
Oils and fats (e)	0.23	36.62	0.27	7.00	0.02	295.70	—	—	—	—	327	1,368
Beverages (f)	0.99	—	11.92	11.88	0.10	—	—	0.67	0.67	0.56	196	820
Total	100.65	119.26	407.43	859.20	15.74	1,580.56	92.46	3.06	3.06	22.05	3,248	13,595

(a) Adjustments have not been made for loss of nutrients in cooking, or the extra niacin obtained from the metabolism of protein. See Table 5 for adjustments for specific vitamin availabilities. (b) Expressed as the sum of retinol content and 1/6 of the β -carotene equivalent. (c) Includes canned and cured meat and edible offal. (d) Excludes butter. (e) Includes butter. (f) Comprises beer, wine and spirits.

Note. The nutrient content of pulse and nuts is not available.

TABLE 5. ADJUSTMENTS TO THE AVAILABILITY OF SPECIFIC VITAMINS: AUSTRALIA (a)
(Milligrams per head per day)

Nutrient	1973-74		1974-75		1975-76		1976-77	
	Calculated value	Amount available	Calculated value	Amount available	Calculated value	Amount available	Calculated value	Amount available
Vitamin C -								
Milk	3.8	(b)	3.5	(b)	3.3	(b)	3.4	(b)
Meat	1.2	(b)	2.5	(b)	2.9	(b)	3.0	(b)
Fruit and fruit products -								
Fresh, canned and dried	6.2	6.2	6.4	6.4	6.8	6.8	6.8	6.8
Cooked	1.0	0.5	1.9	1.0	0.6	0.3	0.5	0.3
Citrus	30.4	30.4	36.2	36.2	38.4	38.4	31.9	31.9
Vegetables -								
Fresh tomatoes	8.6	8.6	5.8	5.8	8.1	8.1	8.3	8.3
Lettuce	0.5	0.5	0.7	0.7	0.8	0.8	0.9	0.9
Canned vegetables	0.8	0.8	1.0	1.0	0.8	0.8	0.9	0.9
Cooked potatoes and other vegetables	36.9	18.5	45.2	22.6	36.4	18.2	36.9	18.4
Total Vitamin C	89.4	65.5	103.2	73.6	98.0	73.4	92.5	67.5
Thiamin	1.6	1.4	1.6	1.4	1.5	1.3	1.6	1.3
Niacin equivalent (c)	19.0	34.0	21.7	38.0	22.1	38.6	22.1	38.2

(a) Losses in cooking have been estimated for vitamin C and thiamin only; losses of other nutrients are not likely to be significant. (b) Little vitamin C would be retained in these foods. (c) The niacin equivalent of a diet is computed from dietary niacin plus 0.16 times the dietary protein in grams, expressed in milligrams.

TABLE 6. PERCENTAGE OF TOTAL ENERGY DERIVED FROM EACH COMMODITY GROUP: AUSTRALIA

Commodity group	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
Grain products	26.0	26.2	26.8	25.5	25.0	25.3
Sugar	16.3	16.9	18.3	17.3	17.8	17.5
Vegetables	5.2	5.0	4.3	4.6	4.3	4.6
Fruit and fruit products	3.1	2.9	2.7	2.7	3.0	2.8
Meat	19.0	17.0	16.2	19.5	19.8	19.6
Poultry	1.2	1.3	1.3	1.3	1.3	1.5
Eggs and egg products	1.4	1.5	1.4	1.4	1.4	1.4
Seafood	0.5	0.6	0.5	0.5	0.6	0.6
Milk and milk products	12.4	12.5	12.1	11.5	10.9	10.6
Oils and fats	9.9	10.1	10.0	9.5	9.7	10.1
Beverages	5.0	6.0	6.4	6.3	6.1	6.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 7. ESTIMATED NUTRIENTS AVAILABLE FOR CONSUMPTION: AUSTRALIA (a)
(Per head per day)

		Average 3 years ended —						
Nutrient	Unit	1938-39	1948-49	1958-59	1968-69	1974-75	1975-76	1976-77
Protein — Animal	g	58.7	57.4	59.6	61.5	69.6	71.6	69.2
Vegetable	g	30.9	35.3	32.3	40.3	32.2	31.7	31.5
Total	g	89.6	92.7	91.9	101.8	101.8	103.3	100.7
Fat (from all sources)	g	133.5	121.7	131.7	125.4	120.2	121.0	119.3
Carbohydrate	g	377.4	424.8	416.7	419.2	419.4	415.6	407.4
Calcium	mg	642	785	817	985	972.2	923.6	859.2
Iron	mg	15.4	15.1	14.0	15.1	15.2	15.7	15.7
Vitamin A activity	iu	4,905	4,630	4,568	5,189	(b)1,541.0	(b)1,558.8	(b)1,580.6
Vitamin C	mg	52.6	58.8	54.3	63.3	73.6	73.4	67.5
Thiamin	mg	1.2	1.3	1.1	1.4	1.4	1.3	1.3
Riboflavin	mg	1.7	1.9	1.8	2.8	3.2	3.1	3.1
Niacin equivalent	mg	33.0	32.4	33.3	37.2	38.0	38.6	38.2
Energy value	kcal	3,117	3,245	3,297	3,364	3,313	3,310	3,248
	kJ	13,048	13,584	13,801	14,082	13,877	13,854	13,595

(a) Not comparable with years prior to 1968-69. Figures are based on conversion factors calculated from the revised and enlarged edition of S. Thomas and M. Corden *Metric Tables of Composition of Australian Food A.G.P.S.*, Canberra 1977. See notes, page 16. (b) Micrograms (μ g). One international unit of vitamin A is equivalent to 0.3 microgram.

Dietary allowances. The nutritive value of food available for consumption may be compared with some arbitrary standard such as the *Dietary Allowances for use in Australia (1970 Revision)*, formulated by the Nutrition Committee of the National Health and Medical Research Council. This comparison has been made in Table 9 (in conjunction with Table 8), where the quantity of nutrients available for consumption in the Australian diet (as shown in Table 4), less estimated cooking loss, is compared with desirable quantities recommended by the Council. The allowances shown in Table 8 are averages weighted according to the various age groups in the population. The allowance data are based on information from the publication *Estimated Age Distribution of the Population, States and Territories of Australia*, (3201.0).

The comparisons in these tables are useful as an indication of trends in food consumption, although it must be emphasised that the allowances do not necessarily represent nutrient requirement; rather they

were devised for the planning of practical diets within the average Australian food pattern. Precise information concerning human requirements of certain nutrients is far from complete, and no conclusion regarding the nutritional status of the community should be drawn from comparison with these allowances. A deviation from the allowances of the order of 10-15 per cent is not regarded as a serious deficiency. Even if the nutrient intake is more than 15 per cent below the allowance, a nutritional deficiency cannot be assumed without clinical verification.

The calculated figures, being averages, give no information on the food consumption of individuals or of specific groups within the population. Also the figures represent food available for consumption, which is not the same as foods consumed. The Food and Agriculture Organisation of the United Nations estimates that in communities with a plentiful food supply, up to 15 per cent of the food available may be wasted.

TABLE 8. DIETARY ALLOWANCES OF NUTRIENTS: AUSTRALIA (a)
(Per head per day)

Nutrient	Unit	1973-74	1974-75	1975-76	1976-77
Protein	g	59.42	59.52	59.59	59.69
Calcium	mg	438.14	437.53	437.14	436.68
Iron	mg	10.40	10.41	10.43	10.44
Vitamin A activity	µg	673.12	674.24	675.27	676.64
Vitamin C	mg	31.83	31.83	31.84	31.82
Thiamin	mg	0.85	0.85	0.85	0.85
Riboflavin	mg	1.07	1.07	1.07	1.07
Niacin equivalent	mg	14.00	14.01	14.02	14.03
Energy value	{ kcal	2,128	2,131	2,133	2,134
	{ kJ	8,907	8,919	8,927	8,933

(a) Source: S. Thomas and M. Corden *Metric Tables of Composition of Australian Food*, A.G.P.S., Canberra, 1977, Appendix 1. The allowances are averages weighted according to various age groups in the population; the age distributions at the beginning of each period have been used.

TABLE 9. NUTRIENTS AVAILABLE FOR CONSUMPTION, COMPARED
WITH DIETARY ALLOWANCES: AUSTRALIA

Nutrient	Unit	Nutrients available (per head per day)				Nutrients expressed as percentage in excess of dietary allowances (%)			
		1973-74	1974-75	1975-76	1976-77	1973-74	1974-75	1975-76	1976-77
Protein	g	93.5	101.8	103.3	100.7	57.4	71.0	73.4	68.6
Calcium	mg	962.7	972.2	923.6	859.2	119.7	122.2	111.3	96.8
Iron	mg	13.4	15.2	15.7	15.7	28.9	46.0	50.5	49.3
Vitamin A activity	µg	1,205.6	1,541.0	1,558.8	1,580.6	79.1	128.6	130.8	131.5
Vitamin C	mg	65.5	73.6	73.4	67.5	105.8	131.2	130.5	112.1
Thiamin	mg	1.4	1.4	1.3	1.3	60.0	60.0	50.0	56.0
Riboflavin	mg	2.9	3.2	3.1	3.1	171.0	199.7	189.7	186.0
Niacin equivalent	mg	34.0	38.0	38.6	38.2	142.9	171.2	175.5	171.9
Energy value	{ kcal	3,223	3,313	3,310	3,248	51.5	55.5	55.2	52.2
	{ kJ	13,491	13,877	13,854	13,595	51.5	55.6	55.2	52.2

TABLE 10. INTERNATIONAL COMPARISON OF ESTIMATED NUTRIENTS AVAILABLE FOR CONSUMPTION
(Per head per day)

Nutrient	Unit	Australia (a)					United Kingdom (b)					United States of America (c)			
		Average -			1975-76 (d)	1976-77 (d)	Average -			1976	1977	Average -			1977
		1936-37 to	1946-47 to	1956-57 to			1936-37 to	1946-47 to	1956-57 to			1935 to	1947 to	1957 to	
		1938-39	1948-49	1958-59			1938-39	1948-49	1958-59			1939	1949	1959	
Protein -															
Animal	g	58.7	57.4	59.6	71.6	69.2	43.5	43.5	49.9	51.4	50.8	n.a.	n.a.	n.a.	n.a.
Vegetable	g	30.9	35.3	32.3	31.7	31.5	36.8	45.8	34.4	31.7	31.9	n.a.	n.a.	n.a.	n.a.
Total	g	89.6	92.7	91.9	103.3	100.7	80.3	89.3	84.3	83.1	82.7	89.0	95.0	95.0	103.0
Fat from all sources	g	133.5	121.7	131.7	121.0	119.3	130.0	112.6	140.0	130.0	130.0	133.0	141.0	143.0	159.0
Carbohydrate	g	377.4	424.8	416.7	415.6	407.4	377.5	395.8	388.6	378.0	379.0	444.0	403.0	374.0	391.0
Calcium	mg	642	785	817	924	859	688	1,152	1,130	1,130	1,110	910	990	980	940
Iron	mg	15.4	15.1	14.0	15.7	15.7	13.2	15.4	15.7	13.2	13.0	14.5	16.7	16.3	18.6
Vitamin A	i.u.	4,905	4,630	4,568	5,196	5,269	3,699	3,393	4,584	4,520	4,470	8,200	8,700	8,100	7,900
Vitamin C	mg	86	96	89	98	92	93	110	95	96	103	118	113	105	116
Thiamin	mg	1.4	1.5	1.3	1.5	1.6	1.3	1.7	1.8	1.7	1.7	1.5	1.9	1.9	2.1
Riboflavin	mg	1.7	1.9	1.8	3.1	3.1	1.6	1.9	1.8	1.9	1.9	1.9	2.3	2.3	2.5
Niacin	mg	18.7	17.6	18.6	22.1	22.1	13.1	15.9	16.2	19.4	19.3	15.9	21.0	21.1	25.9
Energy value	kcal	3,117	3,245	3,297	3,310	3,248	3,000	2,953	3,147	3,086	3,080	3,300	3,230	3,130	3,370

(a) Data not adjusted for cooking losses and increased niacin. (b) Source: Departments of Trade, Prices and Consumer Protection, Trade and Industry, H.M.S.O., London. (c) Source: Economics, Statistics and Cooperative Service, National Food Review, US Department of Agriculture, Washington. (d) Not comparable with years prior to 1968-69. Figures are based on conversion factors calculated from S. Thomas and M. Corden, *Metric Tables of Composition of Australian Food*, A.G.P.S., Canberra 1977.

Note. Owing to the differences in the bases of calculating consumption and the use of different nutrient conversion factors, figures for the countries shown are not strictly comparable.