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## Serve sizes of grain based foods in Australia

### Abstract

A survey was conducted of the recommended serve sizes used on the labelling of 807 grain based foods sold in Sydney stores in 2000. These values were compared with the serve sizes used in a variety of food selection guides, including the Australian Guide to Health Eating (AGHE). In most food categories there was a great deal of variation in the serve sizes recommended, sometimes up to 20 fold. The most consistent recommendations were for sliced breads, with most manufacturers recommending two slices as a serve, and ready-to-eat breakfast cereals (one cup). The median values for cereal products were mostly lower than the typical reported amounts consumed by adult Australians and those recommended in the AGHE. The recommended serves for pulses were higher than the AGHE serves. It is suggested that food manufacturers attempt to standardise the values closer to those in the AGHE and to provide both raw and cooked serve sizes, where appropriate. The AGHE also needs to be extended to include recommended serve sizes for increasingly popular categories of grain foods such as crispbreads, noodle soups, cereal bars and couscous.

### Keywords

grains, cereals, serving sizes, dietary guidelines

### Disciplines

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## **Abstract**

A survey was conducted of the recommended serve sizes used on the labelling of 807 grain based foods sold in Sydney stores in 2000. These values were compared with the serve sizes used in a variety of food selection guides, including the Australian Guide to Health Eating (AGHE). In most food categories there was a great deal of variation in the serve sizes recommended, sometimes up to 20 fold. The most consistent recommendations were for sliced breads, with most manufacturers recommending two slices as a serve, and ready-to-eat breakfast cereals (one cup). The median values for cereal products were mostly lower than the typical reported amounts consumed by adult Australians and those recommended in the AGHE. The recommended serves for pulses were higher than the AGHE serves. It is suggested that food manufacturers attempt to standardise the values closer to those in the AGHE and to provide both raw and cooked serve sizes, where appropriate. The AGHE also needs to be extended to include recommended serve sizes for increasingly popular categories of grain foods such as crispbreads, noodle soups, cereal bars and couscous.

## **Introduction**

Grain based foods encompass two broad categories of plant foods: cereals and pulses (or legumes). Our national dietary guidelines commend the consumption of plentiful amounts of these foods as the basis of a healthy diet (National Health and Medical Research Council 1992, 1999) and there are several food selection guides defining and recommending the number of serves of grain foods to be consumed each day for good health, including the Australian Guide to Health Eating (AGHE)(Smith & others 1998) and CSIRO's 12345+ Plan (Baghurst & others 1992). Go Grains, a joint initiative of the Grains Research Development Corporation, BRI Australia and a number of food companies, was established in 1998 as a nutrition communication initiative to increase awareness of the health benefits of grain foods and has also produced consumer information including definitions of serves of these foods (Grains Research Development Corporation 2000, 2001).

However, for consumers there is a dilemma in interpreting these recommendations. Unlike the US, where food regulations mandate the serve sizes of foods to be used on the labelling of packaged food, in Australia manufacturers may use whichever serve size they believe is appropriate for their product and there can be significant variations between similar products. It may be difficult for a consumer to know how to interpret what a recommendation of 4-9 serves of cereal foods per day for an adult woman means when confronted with food labels that suggest a single serve of bread may be one or two slices, a serve of breakfast cereal can vary from one third to one whole cup, and suggested serves of rice vary three fold in weight.

The aim of this research was to survey the range of serve sizes used in the labelling of packaged grain based foods in Australia and compare them to standard serve sizes used in food selection guides.

## Methods

A selection of 14 food stores in Sydney was surveyed throughout July to September 2000, including major supermarket chains, specialist Asian food shops and health food stores. Two authors (BG and NS) visited the stores to note the range of grain based products on sale and record information from their nutrition information panels (NIP) on serving size and nutrient content. Serve sizes in grams were recorded as dry weight and cooked weight where this was given. If a product did not have a nutrition information panel, serve size was calculated by dividing the total weight of the product by the number of serves per package, if stated. Products were excluded from the survey if this information was unavailable. The energy value per serve and data on the protein, carbohydrate, fat, dietary fibre and sodium content per serve were recorded where available.

The survey aimed to survey two broad types of basic grain based foods, using the definition of the 1995 National Nutrition Survey (NNS): (1) Cereals and cereal products and (2) Legume and pulse products and dishes (McLennan & Podger 1999). The survey did not include cereal-based products such as sweet biscuits, cakes or pastries, nor crispbreads or crackers that contained more than 10% fat. This level was chosen, based on the level allowed for inclusion in the National Heart Foundation's Food Approval Program (National Heart Foundation 1999) . The foods were subcategorised as follows:

- White bread – included sandwich and toast bread, and fibre increased varieties
- Wholemeal bread – included light rye breads
- Mixed grain bread – included soy and linseed breads
- Fruit bread – included fruit and nut varieties
- Dark rye – included pumpernickel and schinkenbrot
- Muffins – included only English style muffins, both plain and fruit varieties
- Unleavened breads – included lavash and mountain breads
- Crumpets – included both white and wholemeal
- Flat breads – included pita bread and naan
- Bread rolls – included both white and wholemeal
- Bagels – included both white and wholemeal

- Crispbreads – included products used as a substitute for bread and usually eaten with a spread or filling (eg, Ryvitas, Vitaweats)
- Crackers – included products used for snacking with dips or toppings (eg, water crackers)
- Cereal bars – included both breakfast and muesli bar type products.
- Pizza bases – included vacuum sealed shelf-stable and frozen products.
- Dry pastas and noodles – included regular products of any shape and instant varieties
- Flavoured pastas – included those products packaged with dried sauces (eg macaroni cheese)
- Fresh pastas and noodles – included refrigerated or shelf stable products
- Noodle soups – included individual cups or bowls of instant noodles
- Canned pasta – included any pasta in sauces (eg, spaghetti in tomato sauce)
- Dried legumes – included all those requiring cooking before consumption
- Ready-to eat legumes – included canned and vacuum packaged cooked products
- Breakfast cereals – biscuits – eg, Weetbix, MiniWheats
- Breakfast cereals – plain flakes – eg, Cornflakes, Special K
- Breakfast cereals – fruit and flakes – eg, Just Right, Fibre Plus
- Breakfast cereals – puffed – eg, Rice Bubbles, Puffed Wheat
- Breakfast cereals – extruded – eg, Nutrigrain, Grinners
- Breakfast cereals – bran – eg, All Bran, Bran Plus
- Muesli – included plain and toasted varieties
- Porridge – included plain rolled oats and fruit added varieties
- Grains – included rice, flavoured rice, corn, wheat, barley, buckwheat, quinoa and wild rice
- Wheat – included couscous, semolina and burgul
- Corn – included polenta and popcorn.

## Results

Tables 1 - 6 summarise the mean, standard deviation, median and range of recommended serve sizes (to the nearest gram) in the categories of products surveyed, as well as the median energy value (in kJ). Most of the serve values were not normally distributed, so the median value is a better measure of central tendency. Where information was provided for cooked serve size, this is shown in brackets. A total of 807 individual products were identified in this survey, with recommended serve sizes varying more than 25 fold from 10g (popcorn) to 264g (fresh Hokkein noodles).

Two slices was given as the recommended serve for most breads, with an average weight of 60-70grams, however two small manufacturers used a one slice serve in the NIP (Table 1). Very few bread rolls were available in packages with product information labelling; most were sold as loose fresh products and were therefore not included in this survey. Other bread products such as muffins, crumpets and flat breads used a single unit as the serve size.

For processed breakfast cereals generally one cup or two biscuits was the recommended serve (Table 2). Because of the differing density of products, there was variation in the weight per serve from the lightest puffed products to the heavier bran and fruited cereals, but there was an average of about 40g as a serve for the ready-to-eat products, with 89% falling in the range of 30-45g. Oat porridges usually declared the serve size based on the dry product only, with a mean recommendation of 43g (which would equate to a cooked serve of around 120g), but there was a significant range from 30g-100g.

Within the category of pastas and noodles, many of the dry products stated the serve size as 100g (Table 3). This may have been for the sake of simplifying labelling requirements, rather than a true recommendation of a likely serve, since this amount would equate to a serve of 270g of cooked product, based on average Australian food composition data (English & Lewis 1991a). In general the recommended serves were lower for flavoured pastas and noodle soups, compared to plain pasta and noodles. The recommended serve size of noodle soups was high (median 250g), but most of this was due to added water; the actual noodle content (around 30g dry) was less than half that of other products in this category. The median recommended serve sizes of canned pasta products (220g)



was somewhat less than that of cooked plain pasta (270g), and this included the sauce component as well.

The data for 89 whole grain products, covering eight different grain types, is presented in Table 4. Most labels stated the uncooked serve size only, although rices often listed both raw and cooked weights. Plain white rice dominated this category, and the leading brand used a standard 42g serve recommendation (which produces 100g cooked product). The serve sizes for flavoured rices (eg, curry, or chicken) were about half of those of plain rices. The recommended serves of wild rice – which is significantly more expensive and often served mixed with plain white rice – was the lowest of all the grains (mean 23g). There was a ten-fold range in the recommended serve size of popcorn, from 10g to 100g.

Table 5 shows the serve sizes used for a variety of other cereal-based foods: crispbreads, crackers, cereal bars, pizza bases and tacos. There was a wide variation in the serve sizes in these categories, reflecting the differences in the shape, size and product density. In general the serve related to a single unit, but for some crackers and crispbreads manufacturers declared multiple numbers of units as a serve - eg, 2 Ryvita slices (22g), 2½ Salada biscuits (35g), 6 Ryvita biscuits (35g). For crispbreads, the mean serve weight per serve was about one third that of bread and the energy value approximately half that of bread.

There are many more brands of canned or vacuum-packed cooked pulse products on the market that carry a NIP than there are dried products (Table 6). The leading producer of dried beans uses a standard serve of 67g on all products, which would be equivalent to approximately 185g after cooking. There was a much greater variety of recommended sizes of ready to eat products, with a median of 105g overall. Canned baked beans (navy beans) are by far the leading product (with 28 different product lines) and had the largest median recommended serve of 210g.

Table 7 summarises the median serve size values found in the major categories of food in this survey and compares them to the values used in the AGHE (Smith & others 1998), the Core Food Groups (Cashel & Jeffreson 1995) and the CSIRO 12345+ food selection guide (Baghurst & others 1992). For reference, data is included on the 50<sup>th</sup> percentile of typical portion sizes consumed, as reported from a survey of adults in Geelong in 1989/90 using twelve days of weighed food records

per individual (Conn & others 1994). Where recommendations were given by volume, the values have been converted to cooked or dry weight using data from Australian food composition tables (Department of Community Services and Health 1990a, 1990b; English & Lewis 1991a, 1991b). Some of these conversion factors differ slightly from those apparently used by AGHE.

The nutritional data from the product NIPs is reported in Table 8. Not all products carried this information, as it is not required by Australian food standards unless a nutrient claim is made. Most breads, crispbreads, crackers, cereal bars, plain rice, breakfast cereals and canned pulses carried NIPs, but this was less commonly provided on the labels of dry pasta or noodle products, cooking grains other than rice, pizza bases, tacos, or dried pulses. Even when there was a NIP, dietary fibre was not generally included on low fibre products such as white rice.

The energy values per serve ranged widely from 65kJ to 2448kJ, but the median values for the products as eaten were mostly in the range of 400-750kJ, with the exception of crispbreads, which were significantly lower. Median protein values in products as eaten ranged from 1.7g (crispbreads) to 6.9g (breads). Almost all products were low in fat, providing less than 3g per serve, with the exception of mueslis and flavoured noodles or rices. In all categories a serve was a significant source of carbohydrate, with the median values ranging from 12.7g (crispbreads) to 65g (pasta). The median serve size of in all categories provided a source of dietary fibre (>1.5g/serve) - except for crispbreads and rice – and breads, breakfast cereals and pulses were typically high in fibre (>3g/serve). Sodium content varied greatly, however in all categories except flavoured rices there were products that were low in salt according to the Australian Food Standards Code (< 120mg/100g) (Australia New Zealand Food Authority 1999). In general, the lowest sodium values were found in plain dried pasta, noodle and rices, muesli, rolled oats, and pulses.

## Discussion

During the development of the AGHE, focus group testing found that Australian consumers have no common understanding as to what constitutes a standard serve of food, and they expressed a desire for more specific serving size information (Smith & others 1999). Studies in the US have also reported that consumers were confused when recommended serving sizes in the food guide pyramid did not correspond to the serving sizes on food labels (Tavelli & others 1998). The results from this survey show that the median values of the recommended serve sizes for grain based products in Australia are reasonably similar to those suggested in the AGHE, but that there are some areas of potential confusion. The greatest difference was for porridge, where the manufacturers' recommendations were less than half that in the AGHE. The median recommended serves for pasta and rice were 25% lower than the AGHE and those for pulses were 40% higher.

The AGHE recommended serve sizes for cereal foods are based on amounts that would provide approximately 600kJ (Smith & others 1998). The energy content of the manufacturer's recommended serves varied widely but only the crispbreads and crackers (with medians of 273kJ and 424kJ per serve respectively) were significantly below the AGHE target. All of the 31 cracker products had recommended serve sizes providing energy values below 500kJ.

In each food category there were some products with recommended serve sizes that appeared unrealistic compared to normal consumption patterns, but mostly the recommendations on the leading brands were consistent and reasonable. The two categories where median values differed noticeably from the typical portions consumed were breakfast cereals and pasta. Both the mean and median serves of breakfast cereals were lower than the 50th percentile of female adult consumption and also lower than the AGHE serves. There was even more discrepancy with rolled oats porridge, where the median recommended serves was less than half the typical reported intake. This low figure may have been affected by the trend to individual portion packs of microwavable rolled oats with added fruit and flavours. In these products the portion size may have been kept low to limit the price per serve. Similarly with pasta, while the recommended serves of plain dry pastas appeared reasonable, they were much smaller in the newer portion packs of value added flavoured and reduced cooking time products (Table 3).

Realistic serving sizes are particularly important for people who have special dietary needs and for those who are interested to compare the nutrition information per serve. For example, people with diabetes are sometimes given diets based around the concept of exchanges of foods containing approximately 15g of carbohydrate - equivalent to a thin slice of white bread (Department of Nutrition Dietetics and Food Science 1998). The recommended serves of most of the food categories in this survey were closer to double this amount. Consumers wanting to calculate whether their diet provides the recommended 30g of dietary fibre per day could also underestimate their intakes if they assumed the stated serve sizes in the NIP corresponded to their own intakes.

The majority of manufacturers provided only dry weight serve sizes for foods that required cooking (eg, pasta, pulses, rolled oats), whereas most food selection guides provide recommendations for volumes or weights of cooked food. It would be much easier for consumers if both raw and cooked serves were given in the NIP (as is the case on some rice products).

Serve sizes appear to be selected by manufacturers in a number of ways:

- to reflect a single unit of food (eg, a slice, biscuit or can)
- to simplify the NIP by suggesting a 100g serve size, thereby halving the data required to be listed (eg, dry pasta)
- to achieve the minimum fibre content required for a high fibre claim (eg, 2 slices of bread)
- to equate to a standard volume measure (eg 1 cup of breakfast cereal)
- to standardise on a common weight across a range of shapes/forms in a food category (eg 35g crispbreads)
- to standardise the final cooked weight to 100g (eg rice)

Very few serve sizes seem to be chosen to equate to the standards recommended in the AGHE or other food selection guides. In part this may be because there are some categories that are not adequately defined in the AGHE. However the AGHE values do reflect actual consumption amounts and it would be easier for consumers if more manufacturers adopted recommended serves sizes closer to the AGHE serves. At the same time it would be valuable if the AGHE guide information was extended to include a greater range of increasingly popular categories of grain based foods such as crispbreads, noodle soups, cereal bars and couscous.

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**Table 1. Serve sizes of breads**

Type of Bread	No of brands	No of products	Recommended Serve Size (g)				Median Energy (kJ)
			Mean	S.D	Median	Range	
White	9	22	66	12	67	39-84	693
Wholemeal/Rye	9	21	59	24	59	30-95	617
Mixed Grain	11	22	74	16	80	30-95	810
Fruit	4	8	76	16	72	57-98	852
Dark Rye	1	2	50	0	50	50	455
Muffins	3	12	67	1	67	67-70	675
Unleavened	2	7	40	18	25	25-60	750
Bagels	4	15	105	17	109	85-120	1332
Crumpets	2	4	66	16	64	50-87	459
Flat breads	2	5	98	5	100	90-100	1230
Bread rolls	3	5	73	22	85	45-90	851
ALL BREADS	25	123	71	19	71	25-120	750

**Table 2. Serve sizes of breakfast cereals**

Type of breakfast cereal	No of brands	No of products	Recommended Serve Size (g)				Median Energy (kJ) per serve
			Mean	S.D	Median	Range	
Biscuit type cereals	6	24	33	6	30	25-48	473
Plain Flaked cereals	6	13	34	7	30	30-45	486
Fruit+Flaked cereals	8	30	39	7	43	30-45	645
Puffed Cereals	7	20	27	10	30	14-50	472
Extruded Cereals	4	13	31	3	30	30-40	487
Bran cereals	5	12	42	6	45	30-45	639
<i>Total Ready to Eat</i>	<i>15</i>	<i>112</i>	<i>34</i>	<i>8</i>	<i>30</i>	<i>14-50</i>	<i>491</i>
<i>Muesli</i>	<i>14</i>	<i>38</i>	<i>52</i>	<i>9</i>	<i>50</i>	<i>30-65</i>	<i>812</i>
<i>RTE + Muesli</i>	<i>15</i>	<i>150</i>	<i>39</i>	<i>9</i>	<i>40</i>	<i>14-65</i>	<i>639</i>
<i>Porridge</i>	<i>6</i>	<i>17</i>	<i>43</i>	<i>22</i>	<i>34</i>	<i>30-100</i>	<i>524</i>

**Table 3. Serve sizes of pastas and noodles**

Food	No of brands	No of products	Recommended Serve Size (g)*				Median Energy (kJ) per serve
			Mean	S.D	Median	Range	
<b>Pasta</b>							
Plain Dry	18	42	91	20	100 (270)*	50-100 (135-270)	1465
Flavoured	5	37	33 (148)	9 (58)	30 (125)	25-40 (95-250)	694
Fresh	4	7	146	44	156	100-188	870
Canned	6	27	204	33	220	125-220	638
<i>All Pasta (cooked)<sup>a</sup></i>	28	113	207	56	212	95-270	703
<b>Noodles</b>							
Plain Dry	15	38	83 (275)	18 (106)	85 (220)	56-100 (220-480)	1466
Soups	6	28	40 (267)	18 (89)	30 (250)	28-85 (250-750)	523
Fresh	10	34	150 (331)	88 (138)	155 (300)	63-264 (200-527)	1155
<i>All Noodles (cooked)<sup>a</sup></i>	27	100	281	99	250	200-750	1021
<b>Pasta and Noodles</b>							
Dry	34	145	64	31	63	25-150	922
Fresh & canned	19	68	172	54	188	63-264	749
<i>All</i>	47	213	97	64	85	25-264	883

\* figures in brackets indicate serve size when cooked, when this was stated

<sup>a</sup> calculated as 2.7g cooked product per 100g dry, if cooked weight not stated on label



**Table 4. Serve sizes of whole grains**

Grain	No of brands	No of products	Recommended Serve Size (g)				Median Energy (kJ)
			Mean	S.D	Median	Range	
Rice (plain)	11	35	63	21	50	42-100	755
Rice (flavoured)	2	19	38	16	32	29-78	673
Corn	8	12	55	34	40	10-100	696
Wheat	8	11	74	18	70	45-95	933
Barley	3	3	68	28	55	50-100	700
Millet	2	1	100	0	100	100	1535
Buckwheat	2	2	45	78	45	45-50	630
Quinoa	3	2	40	4	42	35-42	665
Wild Rice	2	2	23	4	20	20-25	344
<i>All Grains</i>	<i>31</i>	<i>89</i>	<i>57</i>	<i>25</i>	<i>50</i>	<i>10-100</i>	<i>703</i>

**Table 5. Serve sizes of other cereal-based foods**

Food	No of brands	No of products	Recommended Serve Size (g)				Median Energy (kJ) per serve
			Mean	S.D	Median	Range	
Crispbread	15	57	20	13	17	6-63	273
Crackers	6	31	24	7	25	4-30	424
Cereal bars	6	39	38	8	38	23-50	513
Pizza bases	2	3	98	15	100	83-112	1023
Tacos	3	3	11	1	11	10-11	200

**Table 6. Serve sizes of pulses**

Food	No of brands	No of products	Recommended Serve Size (g)				Median Energy (kJ) per serve
			Mean	S.D	Median	Range	
Chickpeas							
Dried	2	2	71	6	71	67-75	673
Ready to eat	6	8	113	50	103	67-225	486
Kidney Beans							
Dried	1	1	67	0	67	-	795
Ready to eat	7	8	86	23	100	42-100	366
Soya Beans							
Dried	1	1	67	0	67	-	950
Ready to eat	3	5	91	91	102	66-110	505
Lentils							
Dried	2	4	81	22	81	63-100	1025
Ready to eat	5	5	119	61	100	70-225	300
Borlotti Beans							
Dried	1	1	67	0	67	-	795
Ready to eat	3	3	100	100	100	100-100	320
Mixed Beans							
Dried	1	1	100	0	100	-	870
Ready to eat	6	7	78	21	70	55-100	393
Butter Beans							
Ready to eat	2	2	85	78	85	70-100	281
Baked Beans							
Ready to eat	10	28	183	183	210	100-220	851
Other							
Dried	1	6	66	2	67	63-67	788
Ready to eat	4	6	94	39	106	45-130	333
<i>TOTAL</i>							
<i>Dried</i>	2	16	73	14	67	63-100	813
<i>Ready to eat</i>	19	66	130	58	105	42-224	469
<i>ALL (dried + RTE)</i>	21	82	116	43	100	42-225	641

**Table 7. Comparison of recommended serve sizes of grain foods<sup>a</sup> (in grams)**

Foods as eaten	Median values on food labels (this survey)	Australian Guide to Healthy Eating (Smith & others 1998)	Core Food Group (Cashel & Jeffreson 1995)	CSIRO 12345+ Guide (Baghurst & others 1992)	Go Grains (Grains Research Development Corporation 2000)	50 <sup>th</sup> percentile of portion sizes reported by adults (Conn & others 1994)
Breads	71	60	30	30	2 slices (56)	<i>Males</i> 73 <i>Females</i> 53
Breakfast cereals						
<i>Processed</i>	30	40	20	1 cup (30) <sup>b,c</sup>	1 1/3 cup (40) <sup>b,c</sup>	48 35 <sup>c</sup>
<i>Muesli</i>	50	65	- <sup>d</sup>	1 cup (130) <sup>b</sup>		60 59
<i>Porridge-cooked (= dry)</i>	94 34	1 cup (230) 85	- <sup>d</sup>	1 cup (260) <sup>b</sup> 95	1 cup (260) <sup>b</sup> 95	234 197
Pasta	212	180	90	1 cup (200) <sup>b</sup>	1 cup (200) <sup>b</sup>	220 171
Rice	135 (50 dry)	1 cup (180)	90	1/2 cup (95) <sup>b</sup>	1 cup (190) <sup>b</sup>	170 114
Pulses	105	1/2 cup (75)	1/4 cup (45) <sup>b</sup>	-	1/2 cup (95) <sup>b</sup>	-

<sup>a</sup> values for porridge, pasta, rice and pulses expressed as cooked weight

<sup>b</sup> value calculated using data from Australian food composition tables (English & Lewis 1991a, 1991b)

<sup>c</sup> using values for cornflakes and rice bubbles

<sup>d</sup> - = not stated

**Table 8. Comparison of median and range of nutrient content per manufacturer's recommended serve in selected grain foods**

<b>Food (no. of products)</b>	<b>Energy (kJ)</b>	<b>Protein (g)</b>	<b>Fat (g)</b>	<b>Carbohydrate (g)</b>	<b>Dietary Fibre (g)</b>	<b>Sodium (mg)</b>
Breads (123)	750 (225-1585)	6.9 (1.5-13.2)	1.9 (0.2-8.8)	32 (0.3-71.5)	3.4 (0.9-8.5)	299 (2-756)
Crispbreads (57)	273 (92-657)	1.7 (0.4-4.8)	0.7 (0.2-10.0)	12.7 (3.2-28.2)	1.2 (0.2-4.8)	99 (0.1-480)
Crackers (31)	424 (65-490)	1.8 (0.5-3.3)	1.1 (0.3-2.4)	21.1 (8.8-23.8)	0.8 (0.5-2.7)	107 (75-220)
Cereal Bars (39)	513 (361-884)	1.8 (1.2-3.5)	2.2 (0.1-3.7)	27.0 (18.0-40.4)	1.6 (0.4-2.9)	65 (7-127)
Pasta/Noodles						
<i>Plain dry (42)</i>	1465 (636-1618)	11.4 (3.2-34.2)	1.5 (0-17.1)	65.0 (31-225)	2.6 (0.3-10.0)	19 (2-600)
<i>Flavoured dry (37)</i>	694 (500-1770)	4.5 (2.8-16.0)	6.4 (1-14.5)	23.1 (20-223.2)	1.0 (0.9-2.3)	455 (175-990)
<i>Ready to eat<sup>a</sup> (68)</i>	749 (350-2448)	5.7 (2.1-21.6)	1.9 (0-11.6)	33.7 (14.8-111.9)	2.2 (1.1-3.3)	503 (48-2843)
Rice						
<i>Plain (35)</i>	755 (580-1480)	4.1 (2.7-7.0)	0.5 (0.1-1.2)	40 (7.8-80.7)	0.5 (0.2-1.7)	1 (0.4-7.5)
<i>Flavoured (19)</i>	673 (519-1210)	3.0 (2.4-6.3)	4.1 (0.8-5.1)	27 (24.3-62.6)	n.a.*	455 (240-1550)
Breakfast Cereals						
<i>Ready to eat (112)</i>	491 (210-857)	3.2 (0.8-14.5)	0.6 (0-5.0)	26.0 (10.8-38.1)	3.2 (0.2-20.8)	116 (1-276)
<i>Muesli (38)</i>	812 (574-1090)	4.9 (2.2-9.2)	4.7 (1.1-9.6)	32.3 (20.6-45.0)	4.6 (1.8-9.0)	15 (2-560)
<i>Porridge (17)</i>	524 (462-1640)	3.4 (2.7-12.8)	2.6 (1.1-7.6)	22.7 (20.0-66.7)	2.8 (0.8-10.4)	5 (1-15)
Pulses						
<i>Dry (16)</i>	813 (492-1090)	11.9 (6.5-24.2)	0.9 (0.4-10.3)	36.8 (18.7-367.7)	11.2 (6.7-16.7)	29 (5-64)
<i>Ready to eat (66)</i>	469 (139-1050)	6.2 (1.2-13.4)	0.8 (0-12.5)	19.0 (1.0-112.2)	6.3 (1.1-17.4)	344 (1-1210)

\* not available - values not stated on label

<sup>a</sup> ready to eat = fresh and canned

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