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Update of a database for estimation of whole grain content of foods in Australia

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Abstract

Food composition data is essential for calculating consumption based on reported dietary intake. Inclusion of the whole grain content of foods in food composition databases is limited. In Australia, quantification of whole grain composition does not include all foods within the current survey database, AUSNUT (Australian Food, Supplement and Nutrient) 2011-13. This study aimed to update an existing Australian whole grain database to include all foods and food products within AUSNUT 2011-13 (n = 5741). Whole grain content (g) per 100 g was calculated using a systematic recipe-based approach, and input from industry stakeholders, product packaging, and ingredient lists. Overall 590 foods were identified as containing whole grain. Cereals and cereal products formed the majority (43%) of the database. Foods with whole grain content 100.0 g/100 g were raw or puffed whole grains, whole grain flours, and ready to eat cereals made from 100% whole grains. Considerable variation in whole grain content exists between and within food groups. The updated database may be a useful tool for assessing whole grain content of Australian food intake data. Application will allow estimation of whole grain intake in highly varied Australian population groups.

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Original Research Article

Update of a database for estimation of whole grain content of foods in Australia

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Highlights:

- An Australian whole grain database updated to include 590 foods containing whole grain
- Methods were based on a recipe approach and input from the food industry
- Considerable variation in whole grain content exists within and between food groups
- The database enables comparison of whole grain dietary intake to recommendations

Abstract

Food composition data is essential for calculating consumption based on reported dietary intake. Inclusion of the whole grain content of foods in food composition databases is limited. In Australia, quantification of whole grain composition does not include all foods within the current survey database, AUSNUT (Australian Food, Supplement and Nutrient) 2011-13. This study aimed to update an existing Australian whole grain database to include all foods and food products within AUSNUT 2011-13 (n=5741). Whole grain content (g) per 100g was calculated using a systematic recipe-based approach, and input from industry stakeholders, product packaging, and ingredient lists. Overall 590 foods were identified as containing whole grain. Cereals and cereal products formed the majority (43%) of the database. Foods with whole grain content 100.0g/100g were raw or puffed whole grains, whole grain flours, and ready to eat cereals made from 100% whole grains. Considerable variation in whole grain content exists between and within food groups. The updated database may be a useful tool for assessing whole grain content of Australian food intake data. Application will allow estimation of whole grain intake in highly varied Australian population groups.

Keywords: Australia; AUSNUT 2011-2013; whole grain; food composition; food analysis; survey database; food products; food industry.

1 Introduction

Recommendations within the Australian Dietary Guidelines (ADG) encourage consumption of mostly whole grain and/or high cereal fibre varieties of core grain (cereal) foods (National Health and Medical Research Council, 2013). This recommendation has been quantified, with the Grains and Legumes Nutrition Council (GLNC), a not for profit organisation promoting grain and legume nutrition in Australia, supporting a 48g whole grain Daily Target Intake (DTI) (Griffiths and Nestel, 2006). Whole grains are defined by Food Standards Australia New Zealand (FSANZ) as “the intact grain or the dehulled, ground, milled, cracked or flaked grain where the constituents- endosperm, germ and bran- are present in such proportions that represent the typical ratio of those fractions occurring in the whole cereal, and includes wholemeal” (FSANZ, 2011a). Despite these recommendations, no current, nationally representative data exist to quantify whole grain intake in the Australian population. Nationally representative data exist for the US and UK, indicating current whole grain intake amongst adults appears to be less than one 16g serving per day, below the recommended three servings per day (Cleveland et al., 2000; Lang et al., 2003; Mann et al., 2015b; O'Neil et al., 2010).

There is no analytical method for measuring whole grain in foods, and there are currently no recognised, validated biomarkers of whole grain intake. The use of plasma alkylresorcinols (or their metabolites) is promising, as they are found only in the outer layers of wheat and rye, remain stable during food processing, and are well absorbed by humans (Ross et al., 2015). However, inter-individual variation is high, and alkylresorcinols are not accurate biomarkers from intake of all commonly consumed whole grains such as rice and oats. Therefore, in order to allow quantification of whole grain intake, an up to date whole grain database, matched to the food supply is essential to be used together with current dietary intake data.

The 2011-13 Australian Health Survey (AHS) provides the most recent national survey data within Australia, collecting information on dietary intake, physical activity, and biochemical markers (FSANZ, 2013a). Each food reported within the survey was categorised within the related Australian survey database, AUSNUT 2011-13 Food, Supplement and Nutrient Database (FSANZ, 2013a), to allow calculation of nutrients from 24-hour recall data obtained in the survey. Each food within the AUSNUT database has a name and an eight-digit identification code. These codes are grouped into broader food groups using a hierarchical nested coding system. For example, within the major (two digit) food group *Cereals and cereal products*, sub-major (three digit) food group classifications include "*Breakfast cereals, ready to eat*" and "*Breakfast cereals, hot porridge style.*" Minor (five digit) food groups categorise foods based on fortification, whether they have saturated fat or sugar content above or below a certain value, and production or processing considerations. For example, "*Breakfast cereal, wheat based, fortified, sugars >20g/100g*" and "*Porridge style, other cereals.*"

A recent whole grain database developed by Dalton, Probst and colleagues (2014) represents a significant advance in the ability to quantify whole grain intake within Australia. The database provides compositional data related to manufactured and packaged food products available on the Australian market in 2011. Whole grains are most often consumed as an ingredient within products or mixed dishes, such as breads and breakfast cereals. They may make up a proportion of the food, but in many cases, not one hundred percent of the weight of the total food. Hence it is of great importance to adjust for the proportion of whole grains contained in whole grain products, as the assumption that the weight of whole grains consumed is the same as the weight of the food product itself could result in dramatic overestimations of whole grain consumption. With additional work relating to mixed dishes, and coding for foods to match the AUSNUT 2011-13 database (FSANZ, 2013a), the existing whole grain database by Dalton, Probst and colleagues (2014) can be updated.

The aim of the present study was to update the existing whole grain database, to include all foods and food products included within the most recent Australian survey database, AUSNUT 2011-13. Challenges encountered during the multi-step process are described. This database can be used in future studies to quantify whole grain intake of the Australian population using data from the most recent population survey, the 2011-13 AHS, along with application in other dietary studies.

2 Material and methods

This update of a whole grain database has adapted methods described elsewhere (Dalton et al., 2014), applied to the most recent Australian food composition survey database, AUSNUT 2011-13. The update involved input from GLNC, food manufacturers, product packaging and whole grain content claims, ingredient lists, and a recipe-based approach informed by previous research (Dalton et al., 2014; Franz and Sampson, 2006; Kyrø et al., 2012). In summary, the process included the identification of foods in the AUSNUT database containing whole grains, calculating the whole grain content from cooked and mixed dishes by considering final weight and weight change, calculating the whole grain content of cooked grains using a weight change factor and applying professional judgement to assign values from similar foods in the absence of the above data.

2.1 Data extraction and management

Product data were collated and managed in a Microsoft Excel spreadsheet (Version 14.0.0, 2011, Microsoft Corporation, North Ryde, NSW, Australia). Foods within AUSNUT 2011-13 were categorised according to the AUSNUT 2011-13 food coding system at the major, sub-major, and minor food group levels (FSANZ, 2015).

2.2 Development of a framework to update foods and food products containing whole grain ingredients

For the purpose of this research, cereal grains and ingredients were classified in accordance with the FSANZ (Australian regulatory organisation) definition of whole

grains (FSANZ, 2011a). This included buckwheat, buckwheat flour, BarleyMax™, millet, rolled oats, rice (brown, wild, black, red), rye, rye flour, sorghum, triticale, wheat and wholemeal wheat flour (including burghul, faro, einkorn, freekeh, kamut spelt, teff), and sprouted whole grains. For this research, pseudo grains (amaranth, buckwheat, and quinoa) were also considered as whole grains due to their similar macronutrient profile.

In order to add whole grain values to the existing whole grain database, all foods containing whole grains were identified within the AUSNUT 2011-13 Database (FSANZ, 2013a) and Food Recipe File (FSANZ, 2013b). No limits were set on the minimum whole grain content to be contained in a product, allowing reporting of total grams of whole grain content as suggested by Ross et al. (2015).

2.3 Whole grain content calculations

An overview of the systematic method for calculating whole grain content is provided in Figure 1. Adapted from Dalton et al. (2014), the whole grain content of cooked grains and mixed dishes composed of more than one ingredient, such as brown rice salad or porridge, involved disaggregating mixed foods to their individual ingredient levels using the AUSNUT Food Recipe File (FSANZ, 2013b). In this recipe-based approach, grams of ingoing whole grain (ingredients) were divided by the final weight of the product, after applying a total weight change percentage factor (FSANZ, 2011b) to account for moisture losses during processing as shown in Equation 1:

$$\text{Whole grain content (g/100g)} = \frac{\text{ingoing whole grain weight (g)}}{\text{final weight of product (g)}} \times 100$$

Where

$$\text{final weight of product (g)} = \text{sum of ingoing ingredients (g)} \times \left(\frac{100 + \text{weight change factor}}{100} \right)$$

Equation 1: Calculation of whole grain content using a recipe-based approach

This approach was also adopted for cooked grains containing a recipe within the FSANZ Food Recipe File for AUSNUT 2011-13, and for toasted products, as shown in Table 1.

Whole grain content of foods that did not contain recipes within the FSANZ Food Recipe File involved data transferred by an author from an existing whole grain product database, calculated using methods described for the previous version of the database (Dalton et al., 2014). Cooked grains that did not have an associated recipe in the 2011-13 AUSNUT database, for example *Rice, brown, boiled, no added salt*, were considered an exception; this calculation involved using a weight change factor from the FSANZ Nutrition Panel Calculator Explanatory Notes (FSANZ, 2011b) which demonstrates the uptake of water by the rice during cooking. For example:

$$\begin{aligned}
 \text{FSANZ weight change factor for brown rice, boiled} &= 170 \\
 \therefore \text{Final weight of 100g dry brown rice, boiled} &= 100\text{g} \times \left(\frac{100\text{g} + 170}{100} \right) \\
 &= 270\text{g boiled brown rice} \\
 \therefore \text{Percentage of whole grain in 270g boiled brown rice} &= \frac{100\text{g}}{270\text{g}} \times 100 \\
 &= 37.4\%
 \end{aligned}$$

If a weight change factor was not present for a cooked grain in the FSANZ Explanatory Notes (FSANZ, 2011b), whole grain content was calculated using nutrient profile information of ingredients, based on the assumption that raw whole grains are composed of 100% whole grain. For example:

| | Energy (kJ)/100g |
|---|-----------------------------|
| Bulgur, dry | 1349 |
| Bulgur, soaked in water, no added fat or salt | 665 |
| Bulgur, boiled, no added fat or salt | 341 |

Ingoing weight of bulgur, dry in 100g bulgur, soaked in water:

$$= \frac{665\text{kJ}}{1349\text{kJ}} \times 100\text{g}$$

$$= 49.3\text{g whole grain in } 100\text{g}$$

Ingoing weight of bulgur, dry in 100g bulgur, boiled:

$$= \frac{341\text{kJ}}{1349\text{kJ}} \times 100\text{g}$$

$$= 25.3\text{g whole grain in } 100\text{g}$$

If a food did not contain a recipe in the Food Recipe File nor data in the existing whole grain product database, whole grain content was imputed from data obtained from an annual product audit of grain and legume product manufacturers (GLNC, 2014). Within this audit, whole grain content was determined based on values corresponding to manufacturer whole grain content claims. If the claim did not allow an estimation of whole grain content, ingredient lists were used to determine an estimate based on the percentage contribution of characterising ingredients containing whole grain. This approach was adopted for multiple products; for example, *Bread, from rye flour, organic, commercial*.

If product data remained absent, ingredient information was imputed from product packaging, company websites, or through company advice. If whole grain data remained unavailable, matched data for equivalent products were used, assuming similar whole grain composition. For example, data for *Biscuit, sweet, Anzac style, commercial* was transferred from a recipe calculation of *Biscuit, sweet, Anzac style, homemade from basic ingredients, fat not further defined*.

The whole grain content of food without equivalent products or where a standard recipe was not considered applicable, for example *Muesli, commercial, gluten free*, was estimated using an ingredient list approach. This involved estimating weight of whole grain ingredients by deducting the ingoing weight of characterising ingredients, as listed on the product ingredient list, and estimating the ingoing weight of remaining ingredients based on order of descending weight. This process was repeated for multiple recipes to obtain an average within each food code.

For example, a gluten free muesli product listing ingredients in order of descending ingoing weight as (whole grain ingredients are italicised): *puffed brown rice*, rice bran, prune juice concentrate, pepitas, honey, sulphur free apricots, sultanas, *roasted buckwheat*, apples, sunflower seeds, linseeds, *amaranth*, sliced cranberries (8%), currants.

In 100g of the product:

| | |
|--------------------------------|---------------------|
| Weight of sliced cranberries | = 8g |
| Weight of first 11 ingredients | ≥ 8g per ingredient |
| Whole grain ingredients | n=3 |
| ∴ Whole grain weight | ≥ 3 × 8g |
| | ≥ 24g |

3 Results

3.1 Calculation of whole grain content of foods in the AUSNUT 2011-13 database

Of the 5741 foods reported across the AHS period, 590 foods (10.3% of all foods in AUSNUT2011-13) were identified using the AUSNUT 2011-13 Food, Supplement and Nutrient Database (FSANZ, 2013a) and Food Recipe File (FSANZ, 2013b) as containing any amount of whole grain or whole grain ingredients. A complete list of estimated whole grain content of all foods containing whole grains in AUSNUT 2011-13 has been compiled (see supplementary material). The whole grain content of a sample of commonly consumed foods is shown in Table 2.

At the **major** food group level, cereals and cereal products comprised 43% of the updated database (n=256), followed by cereal based products and dishes (34%, n=203) (Table 3). Whole grain containing products were also identified in snack foods, cereal/nut/fruit/seed bars, soup, dairy substitutes, and meat, poultry, game, fish, fruit, vegetable, legume, and milk products and dishes, however products from the latter categories only comprised 22% (n=131) of all products within the updated whole grain database.

At the *sub-major* level, mixed dishes where cereals are the major ingredient comprised 29% of the total sample (n=173/590), followed by regular breads and bread rolls (16%, n=94/590) and ready to eat cereal (RTEC) (16%, n=94/590)(Table 3). Sub-major food groups containing the highest mean whole grain content included flours and other cereal grains and starches (65.5g \pm 32.9g), extruded or reformed snacks (63.0g \pm 2.7g), and pastries (59.1g \pm 5.3g).

Foods with whole grain content 100.0g/100g were raw or puffed whole grains, whole grain flours, and RTEC made from 100% whole grains. Considerable variation in whole grain content exists between and within food groups. For example, whole grain content of whole grain-containing RTEC ranged from 1.9g/100g (*Breakfast cereal, corn based, not further defined*) to 100.0g/100g (*Breakfast cereal, puffed or popped rice, no added sugar or salt, unfortified*).

4 Discussion

This study builds upon an existing database to expand quantitative estimates of whole grain foods reported within the 2011-13 AHS, and considers the challenges faced in this process. This is necessary to allow accurate assessment of whole grain intake in population and other Australian food-related studies.

Whole grains contain a range of nutrients and bioactive substances, and no standardised method to assess whole grain content is available, unlike standardised methods to measure nutrients. The measurement of whole grain content based on the presence or absence of key nutrients would be difficult as nutritional composition differs between and within whole grain varieties, affected by factors including seed type, variety, climate and production conditions. It is unlikely that a feasible method will be developed within the near future. Hence a whole grain database developed using a systematic recipe-based approach, represents a favourable method of estimating the whole grain content of foods.

The method adopted in the current study allows estimation of whole grain content of a range of foods within the AUSNUT 2011-13 database, building upon the most

recent Australian work in this area (Dalton et al., 2014). The method may also be adapted to other countries globally by applying geographically specific data to food composition survey databases. The United States Department of Agriculture has also sought to quantify whole grain intake in the development of the Food Pattern Equivalents Database (United States Department of Agriculture, 2014). The aims of both databases are similar in that they intend to allow for translation of food information to recommendations provided by the Dietary Guidelines. They also allow for dietary pattern analyses to be conducted both in relation to these Dietary Guidelines, and also the ingredient component(s) of focus. Prior to this, quantification of whole grain data was limited in Australia and globally, with known databases found only in the US and Europe. These databases applied similar methods and faced similar challenges to those described in this study.

This study exposed the challenges in updating a whole grain database. The whole grain definition adopted within the current study (FSANZ, 2011a) is harmonised with current international consensus statements and definitions of whole grains (American Association of Cereal Chemists International, 1999; Björck et al., 2012; van der Kamp et al., 2014). In this definition, germ and bran are not included in whole grain calculations. Until more recently (Mann et al., 2015a), international epidemiological studies have included added bran and germ in calculations, affecting the comparison of results with data from other nations which is likely to overestimate whole grain intake (Maras et al., 2009).

An additional challenge arose in obtaining quantified whole grain content of the range of whole grain products, given the significant variability in whole grain content within and between product categories. Difficulty in identifying whole grain ingredients and determining whole grain content arose where product data were not available, and where manufacturers were unable to share data related to the proportion of whole grain ingredients within their products. Furthermore, while some cereals could contain a proportion of whole grain, removal of some whole grain components may occur due to processing. Input from food manufacturers and

organisations were important in clarifying ingredient specifications, in line with proprietary product information. The AUSNUT 2011-13 Food Recipe File (FSANZ, 2013b) also does not specify between whole grain corn and corn meal, which is often refined. Thus, it was challenging to define which corn-based products contain whole grain corn. It was assumed that cornmeal within the Australian food supply was not whole grain, hence excluded from whole grain content calculations, unless data from the existing whole grain product database (Dalton et al., 2014) indicated otherwise.

Greenfield and Southgate (2003) acknowledge the development of a truly complete food composition database is not possible. However, databases should reflect the main consumed foods of the population in order to avoid limitations of data use and imprecision of nutrient intake estimations (Rittenschober et al., 2016). By updating a whole grain database based on AUSNUT 2011-13, it is believed the current study captures all foods containing whole grains as reported within a nationally representative and recent Australian survey. Therefore within the limitations described, this approach provides the best estimate for the whole grain content of foods at this point in time.

Cooperation amongst multiple stakeholders was instrumental in the collation of product information, although limitations in access to food manufacturer proprietary information for product formulations led to assumptions and imputed values from similar products. Integrated efforts from an independent organisation (GLNC) and contributing food manufacturers were necessary in collating whole grain content information given sparse labelling on many foods. Clear quantification is required to help communicate messages to consumers, which is an area for further work now that quantification has been achieved.

Values used to update the whole grain database are a source of non-sampling error, as values were calculated using a recipe approach, borrowed from food industry, product labels, or imputed from products assumed to have a similar whole grain composition. Chemical analyses were not conducted to validate the accuracy of the

data (Dalton et al., 2014). Values were applied by one researcher and checked by another researcher to ensure consistency and minimise error in calculation and data entry.

Some assumptions made during calculation may have led to small under- or overestimations of whole grain intake. However, use of strict inclusion and exclusion criteria of whole grain ingredients and rigorous calculation within a systematic approach was adopted to obtain the best possible estimates. Variations in the composition of manufactured foods due to product reformulation cannot be accounted for in the database. Rather, the database provides an estimation of whole grain content of reported foods calculated at the time of the study. Therefore future users of the database must ensure values are relevant to the food supply. Finally, classification of whole grains was based on the FSANZ definition, which excludes added bran and germ (FSANZ, 2011a). Future work could include a separate analysis to include high fibre grain foods, which would capture foods containing added bran and germ and therefore provide valid comparison of Australian data directly with that overseas.

5 Conclusion

This updated whole grain database provides a useful resource for estimating whole grain intake within the Australian context, particularly relevant for analysis of the 2011-13 AHS. Future research may address validation of the database and incorporation of serve sizes to enable ease of translation into practice.

Disclaimers:

EB is a member of the Code of Practice for Whole Grain Ingredient Content Claims Steering Committee for the not for profit Grains and Legumes Nutrition Council (GLNC). CC is an employee of GLNC. YP is a member of the Campbell Arnott's Nutrition Advisory Group, the Food Standards Australia New Zealand Food

Composition Advisory Group and the International Nutrient Databank Directory Committee.

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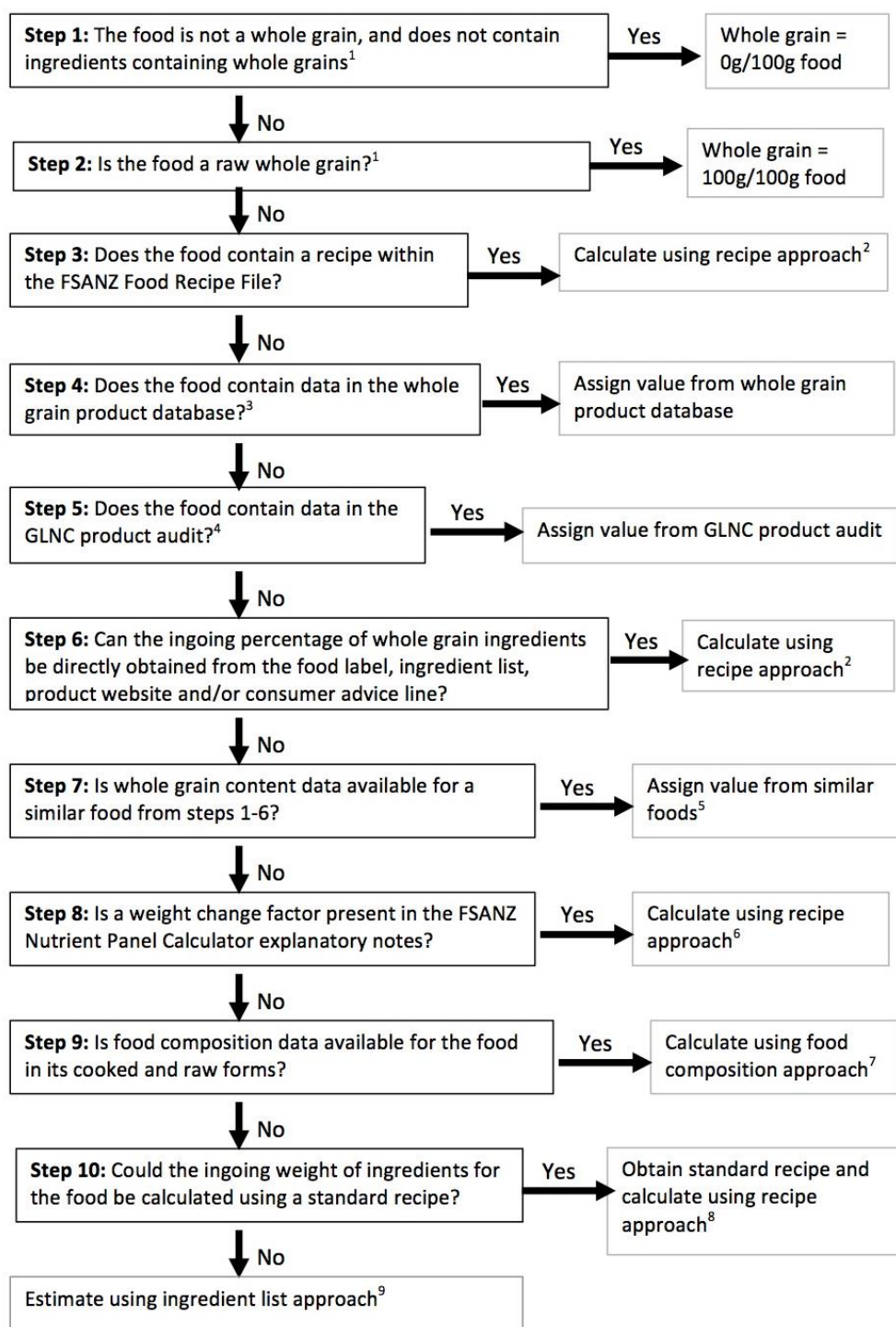


Figure 1: Schematic process for calculation of whole grain content of foods within the AUSNUT 2011-13 Food, Supplement and Nutrient Database

¹ Whole grains include BarleyMaxTM, millet, oats, rice (brown, black, wild, red), rye, rye flour, sorghum, sorghum flour, triticale, whole grain wheat and wheat flour

(including burghul, faro, einkorn, freekeh, kamut spelt, teff), sprouted whole grains, amaranth, buckwheat, buckwheat flour, quinoa.

² Recipe-based approach: Whole grain content (g/100g) = $\frac{\text{ingoing whole grain weight (g)}}{\text{final weight of product (g)}} \times 100$, where

final weight of product = sum of ingoing ingredients + weight change factor . This approach was also applied to cooked grains and toasted products, where ingoing whole grain weight is calculated based on the raw grain, and untoasted product respectively.

³ Whole grain product database developed by Dalton, Probst and colleagues (2014) used with permission.

⁴ GLNC 2014 Grains and Legumes Product Audit (GLNC, 2014) contains whole grain content based on label data from foods.

⁵ Values from foods with similar nutritional compositions, and within the same food group at the sub-major food group level were assigned. Whole grain content was based on composition of the assigned food.

⁶ A weight change factor was transferred from the FSANZ Nutrition Panel Calculator Explanatory Notes (FSANZ, 2011b) for cooked grains that did not contain a weight change factor within the AUSNUT 2011-13 Food Recipe File (FSANZ, 2013b). Whole grain calculation was based on the recipe approach from step 3.

⁷ Food composition approach: adopted for cooked whole grains where a weight change factor was not available. The proportion of ingoing (ingredient) raw whole grain per 100g of the cooked whole grain = $\frac{\text{energy content of cooked whole grain per 100g}}{\text{energy content of raw whole grain per 100g}}$

⁸ Standard recipes were sourced from recipe books (Australian Women's Weekly) to determine ingoing weight of ingredients, develop a recipe, and calculate whole grain content using the recipe approach from step 3.

⁹ Ingredient list approach: developed a recipe by deduction, based on the product ingredient list in descending order of weight. Whole grain content was calculated for multiple products within each food category, and an average obtained

Table 1: Sample calculation of whole grain content (g) per 100g, using a recipe-based approach applied to cooked grains and toasted products.

| Food name | Weight change factor (%) ¹ | Ingoing ingredients | Ingoing ingredient weight (g) | Total ingoing weight (g) | Final weight (g) ² | Whole grain (g) per 100g |
|---|---------------------------------------|--|-------------------------------|--------------------------|-------------------------------|--------------------------|
| Recipe | | | | | | |
| Bread, damper, from wholemeal commercial flour, | -9 | Sugar, white, granulated or lump | 8 | 1039.0 | 945.5 | 55.5 |
| | | Water, tap | 310 | | | |
| | | Flour, wheat, wholemeal, self-raising | 525 | | | |
| | | Shortening, commercial, vegetable fat | 40 | | | |
| | | Milk, cow, fluid, regular fat (~3.5%) | 129 | | | |
| | | Salt, table, iodised | 10 | | | |
| | | Folic acid | 17 | | | |
| | | Thiamin | 0.015 | | | |
| Cooked grain | | | | | | |
| Quinoa, cooked in milk, no added salt | -5 | Quinoa, uncooked | 180 | 930.0 | 883.5 | 20.4 |
| | | Milk, cow, fluid, unflavoured, not further defined | 750 | | | |
| Toasted product | | | | | | |
| Bread, damper, from wholemeal commercial, toasted | -15 | Bread, damper, from wholemeal flour, commercial | 100 | 100.0 | 85.0 | 65.3 ³ |

¹ Adapted from Food Standards Australia New Zealand (FSANZ, 2011b)

² Final weight of product (g) = sum of ingoing ingredients (g) \times $\left(\frac{100 + \text{weight change factor}}{100} \right)$

³ Whole grain content of *toasted product* (g/100g) = $\frac{\text{ingoing whole grain weight of untoasted product (g)}}{\text{final weight of toasted product (g)}} \times 100$

Table 2: Whole grain content of a sample of foods from the AUSNUT 2011-13 Food, Supplement and Nutrient Database

| Food name | Whole grain content (g/100g) |
|---|-------------------------------------|
| Bar, muesli or snack, plain or with 10% dried fruit | 46.3 |
| Biscuit, savoury, from wholemeal wheat flour, crispbread | 81.7 |
| Biscuit, sweet, Anzac style, commercial | 14.3 |
| Bread, from wholemeal flour, commercial | 60.2 |
| Breakfast cereal, whole wheat, biscuit, no added sugar or salt, unfortified | 100.0 |
| Milk, rice, fluid, added calcium | 13.0 |
| Muffin, English style, from wholemeal flour, commercial, toasted | 65.4 |
| Pasta, wholemeal wheat flour, plain, boiled from dry, no added salt | 37.2 |
| Popcorn, air-popped, no added fat or salt | 100.0 |
| Porridge, rolled oats, prepared with cows milk | 17.7 |
| Rice, brown, fried with bacon or ham, egg & mixed vegetables | 21.4 |
| Sandwich or roll, filled with egg | 9.4 |

Table 3: Contribution of major food group categories to whole grain database, and mean (standard deviation, SD) whole grain content of sub-major food groups within whole grain database.

| Food group | Foods containing whole grain, n (%) | Mean whole grain content, g (SD) |
|---|-------------------------------------|----------------------------------|
| <i>Cereals and cereal products</i> | 256 (43) | |
| Flours and other cereal grains and starches | 27 | 65.5 (32.9) |
| Breakfast cereals, ready to eat | 94 | 55.0 (22.9) |
| Regular breads, and bread rolls (plain/unfilled/untopped varieties) | 94 | 38.7 (20.4) |
| English-style muffins, flat breads, and savoury and sweet breads | 16 | 33.7 (21.6) |
| Pasta and pasta products (without sauce) | 5 | 32.3 (32.7) |
| <i>Cereal based products and dishes</i> | 203 (34) | |
| Pastries | 2 | 59.1 ¹ |
| Savoury biscuits | 12 | 55.6 (31.7) |
| Batter-based products | 2 | 31.8 ¹ |
| Cakes, muffins, scones, cake-type desserts | 6 | 28.6 (28.2) |
| Sweet biscuits | 7 | 10.5 (33.6) |
| Mixed dishes where cereal is the major ingredient | 173 | 5.4 (6.3) |
| <i>Fish and seafood products and dishes</i> | 9 (2) | |
| Fin fish (excluding commercially sterile) | 9 | 0.3 (0.1) |
| <i>Fruit products and dishes</i> | 4 (1) | |
| Mixed dishes where fruit is the major component | 4 | 2.8 (0.3) |
| <i>Meat, poultry and game products and dishes</i> | 38 (6) | |
| Mixed dishes where poultry or feathered game is the major component | 18 | 0.3 (0.1) |
| Mixed dishes where beef, sheep, pork or mammalian game is the major component | 18 | 0.3 (0.1) |
| Mixed dishes where sausage, bacon, ham or other processed meat is the major component | 2 | 0.3 ¹ |
| <i>Milk products and dishes</i> | 3 (1) | |
| Yoghurt | 3 | 1.0 (0.1) |
| <i>Dairy & meat substitutes</i> | 4 (1) | |
| Dairy milk substitutes, unflavoured | 4 | 12.0 (0.8) |
| <i>Soup</i> | 13 (2) | |
| Soup, commercially sterile, prepared from condensed or sold ready to eat | 2 | 0.2 ¹ |
| Soup, homemade from basic ingredients | 11 | 0.1 (0.1) |
| <i>Savoury sauces and condiments</i> | 1 (0) | |
| Dips | 1 | 1.00 ¹ |
| <i>Vegetable products and dishes</i> | 8 (1) | |
| Mixed dishes where vegetables are the major component | 8 | 2.7 (4.5) |

| | | |
|--|------------------|------------------|
| <i>Legume and pulse products and dishes</i> | 6 (1) | |
| Mature legume and pulse products and dishes | 6 | 1.3 (0.8) |
| <i>Snack foods</i> | 17 (3) | |
| Extruded or reformed snacks | 3 | 63.0 (2.7) |
| Corn snacks | 11 | 53.1 (27.0) |
| Other snacks | 3 | 6.7 (5.4) |
| <i>Confectionery and cereal/nut/fruit/seed bars</i> | 28 (5) | |
| Muesli or cereal style bars | 27 | 26.6 (15.7) |
| Fruit, nut and seed-bars | 1 | 6.0 ¹ |
| <i>Total</i> | 590 (100) | |

AUSNUT 2011-13 major food groups shown in bold and italicised.

¹ Standard deviation is not reported if less than or equal to two products were contained within the respective food group category.

SD: standard deviation

Original research article

Update of a database for estimation of whole grain content of foods in Australia

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Supplementary Table

1. Table S1: Whole grain content of Australian foods within the AUSNUT 2011-13 Food Nutrient Database, as reported in the 2011-13 Australian Health Survey

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 12 | CEREALS AND CEREAL PRODUCTS | |
| 121 | Flours and other cereal grains and starches | |
| 12101 | Grains (other than rice) and grain fractions | |
| 12101003 | BarleyMax, dry, uncooked | 100.0 |
| 12101004 | Buckwheat groats, uncooked | 100.0 |
| 12101005 | Buckwheat groats, cooked in water, no added salt | 21.3 |
| 12101006 | Bulgur (burghul, burgaul), dry, uncooked | 100.0 |
| 12101007 | Bulgur (burghul, burgaul), soaked in water, no added fat or salt | 49.3 |
| 12101008 | Bulgur (burghul, burgaul), cooked in water, no added fat or salt | 25.3 |
| 12101012 | Grains, boiled, for homemade mixed dishes | 0.9 |
| 12101013 | Grains & pasta, for homemade soup recipes | 1.9 |
| 12101014 | Millet, uncooked | 100.0 |
| 12101015 | Millet, boiled in water, no added fat or salt | 41.7 |
| 12101017 | Oats, rolled, uncooked | 100.0 |
| 12101018 | Oats, rolled, uncooked, added fibre & Ca | 80.0 |
| 12101019 | Quinoa, uncooked | 100.0 |
| 12101020 | Quinoa, cooked in milk, no added salt | 20.4 |
| 12101021 | Quinoa, cooked in water, no added salt | 27.9 |
| 12101022 | Quinoa, cooked in water & fat, no added salt | 27.5 |
| 12101023 | Rice, wild, uncooked | 100.0 |
| 12101024 | Rice, wild, boiled, no added salt | 37.0 |
| 12101025 | Rye, uncooked | 100.0 |
| 12101026 | Rye, grains, cooked in water | 49.7 |
| 12101030 | Spelt, uncooked | 100.0 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 12102 | Rice and rice grain fractions | |
| 12102007 | Rice, brown, uncooked | 100.0 |
| 12102008 | Rice, brown, boiled, no added salt | 37.0 |
| 12102009 | Rice, brown, purchased par-cooked or instant, cooked | 36.7 |
| 12102014 | Rice, red, steamed or rice cooker, no added salt | 37.0 |
| 12103 | Cereal flours and starches | |
| 12103010 | Flour, rye, wholemeal | 100.0 |
| 12103011 | Flour, spelt | 100.0 |
| 12103014 | Flour, wheat, wholemeal, plain | 100.0 |
| 12103015 | Flour, wheat, wholemeal, self-raising | 100.0 |
| 12201009 | Bread, from spelt flour, commercial | 29.8 |
| 12201010 | Bread, from spelt flour, commercial, toasted | 35.4 |
| 12203013 | Bread, from white or wholemeal flour, organic, commercial | 52.8 |
| 12203014 | Bread, from white or wholemeal flour, organic, commercial, toasted | 61.2 |
| 12203017 | Bread, paratha | 27.2 |
| 122 | Regular breads, and bread rolls (plain/unfilled/untopped varieties) | |
| 12204 | Breads, and bread rolls, mixed grain, mandatorily fortified | |
| 12204001 | Bread, mixed grain, commercial | 30.0 |
| 12204002 | Bread, mixed grain, commercial, toasted | 35.3 |
| 12204003 | Bread, mixed grain, added seeds, commercial | 28.8 |
| 12204004 | Bread, mixed grain, added seeds, commercial, toasted | 35.3 |
| 12204005 | Bread, mixed grain, extra grainy & seeds, added pumpkin seeds, commercial | 6.1 |
| 12204006 | Bread, mixed grain, extra grainy & seeds, added pumpkin seeds, commercial, toasted | 7.2 |
| 12204007 | Bread, mixed grain, French stick or baguette, commercial | 33.3 |
| 12204008 | Bread, mixed grain, French stick or baguette, commercial, toasted | 37.0 |
| 12204009 | Bread, mixed grain, commercial, fresh, not further defined | 29.5 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 12204010 | Bread, mixed grain, commercial, toasted, not further defined | 34.7 |
| 12204011 | Bread, mixed grain, for sandwiches purchased from a cafe, takeaway shop or canteen | 29.5 |
| 12204012 | Bread, mixed grain, for sandwiches purchased from a cafe, takeaway shop or canteen, toasted | 34.7 |
| 12204013 | Bread, from white flour, extra grainy & seeds, commercial | 6.8 |
| 12204014 | Bread, from white flour, extra grainy & seeds, commercial, toasted | 8.0 |
| 12204015 | Bread, soy & linseed, commercial | 27.0 |
| 12204016 | Bread, soy & linseed, commercial, toasted | 31.8 |
| 12204017 | Bread roll, mixed grain, commercial | 47.8 |
| 12204018 | Bread roll, mixed grain, commercial, toasted | 56.2 |
| 12206 | Breads, and bread rolls, mixed grain, not stated as to fortification | |
| 12206001 | Bread, from white or wholemeal flour, organic, added grains, commercial | 52.8 |
| 12206002 | Bread, from white or wholemeal flour, organic, added grains, commercial, toasted | 62.1 |
| 12206003 | Bread, mixed grain, homemade from basic ingredients, added salt | 28.5 |
| 12206004 | Bread, mixed grain, homemade from basic ingredients, added salt, toasted | 33.6 |
| 12206005 | Bread, mixed grain, for homemade sandwiches | 29.5 |
| 12206006 | Bread, mixed grain, for homemade sandwiches, toasted | 34.7 |
| 12207 | Breads, and bread rolls, wholemeal and brown, mandatorily fortified | |
| 12207001 | Bread, damper, from wholemeal flour, commercial | 55.5 |
| 12207002 | Bread, damper, from wholemeal flour, commercial, toasted | 65.3 |
| 12207003 | Bread, from wholemeal flour, commercial | 60.2 |
| 12207004 | Bread, from wholemeal flour, commercial, toasted | 70.8 |
| 12207005 | Bread, from wholemeal flour, added seeds, commercial | 54.1 |
| 12207006 | Bread, from wholemeal flour, added seeds, commercial, toasted | 64.4 |
| 12207007 | Bread, from wholemeal flour, mixed grain & seeds, commercial | 27.3 |
| 12207008 | Bread, from wholemeal flour, mixed grain & seeds, commercial, toasted | 32.1 |
| 12207009 | Bread, from wholemeal flour, mixed grain, with quinoa & flaxseeds, commercial | 52.6 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 12207010 | Bread, from wholemeal flour, mixed grain, with quinoa & flaxseeds, commercial, toasted | 61.9 |
| 12207011 | Bread, from wholemeal flour, extra grainy, four seeds, commercial | 21.6 |
| 12207012 | Bread, from wholemeal flour, extra grainy, four seeds, commercial, toasted | 25.4 |
| 12207013 | Bread, from wholemeal flour, extra grainy & seeds, commercial | 57.9 |
| 12207014 | Bread, from wholemeal flour, extra grainy & seeds, commercial, toasted | 68.2 |
| 12207015 | Bread, from wholemeal flour, extra grainy & seeds, added oats, commercial | 46.3 |
| 12207016 | Bread, from wholemeal flour, extra grainy & seeds, added oats, commercial, toasted | 54.5 |
| 12207017 | Bread, from wholemeal flour, sour dough, commercial | 62.3 |
| 12207018 | Bread, from wholemeal flour, sour dough, commercial, toasted | 63.9 |
| 12207019 | Bread, from white & wholemeal flour, commercial | 15.0 |
| 12207020 | Bread, from white & wholemeal flour, commercial, toasted | 17.7 |
| 12207021 | Bread roll, from wholemeal flour, commercial | 67.5 |
| 12207022 | Bread roll, from wholemeal flour, commercial, toasted | 79.4 |
| 12208 | Breads, and bread rolls, wholemeal and brown, additional voluntary fortification | |
| 12208001 | Bread, from wholemeal flour, commercial, added fibre | 66.0 |
| 12208002 | Bread, from wholemeal flour, commercial, added fibre, toasted | 78.6 |
| 12208003 | Bread, from wholemeal flour, commercial, added fibre & vitamins B1, B3, B6 & E, Fe & Zn | 49.0 |
| 12208004 | Bread, from wholemeal flour, commercial, added fibre & vitamins B1, B3, B6 & E, Fe & Zn, toasted | 58.3 |
| 12208005 | Bread, from wholemeal flour, commercial, added iron | 52.2 |
| 12208006 | Bread, from wholemeal flour, commercial, added iron, toasted | 61.4 |
| 12208007 | Bread, from wholemeal flour, commercial, added omega-3 polyunsaturates | 50.0 |
| 12208008 | Bread, from wholemeal flour, commercial, added omega-3 polyunsaturates, toasted | 58.8 |
| 12209 | Breads, and bread rolls, wholemeal, not stated as to fortification | |
| 12209001 | Bread, damper, from wholemeal flour, homemade from basic ingredients | 56.9 |
| 12209002 | Bread, from wholemeal flour, organic, commercial | 18.0 |
| 12209003 | Bread, from wholemeal flour, organic, commercial, toasted | 21.2 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 12209004 | Bread, from wholemeal flour, commercial, fresh, not further defined | 59.5 |
| 12209005 | Bread, from wholemeal flour, commercial, toasted, not further defined | 70.1 |
| 12209008 | Bread, from wholemeal flour, for homemade sandwiches | 59.6 |
| 12209009 | Bread, from wholemeal flour, for homemade sandwiches, toasted | 70.1 |
| 12210 | Breads, and bread rolls, rye, mandatorily fortified | |
| 12210001 | Bread, from rye flour, dark, commercial | 22.9 |
| 12210002 | Bread, from rye flour, dark, commercial, toasted | 27.0 |
| 12210003 | Bread, from rye flour, light, commercial | 19.8 |
| 12210004 | Bread, from rye flour, light, commercial, toasted | 23.3 |
| 12210005 | Bread, from rye flour, sour dough, commercial | 20.0 |
| 12210006 | Bread, from rye flour, sour dough, commercial, toasted | 23.5 |
| 12210007 | Bread, from rye flour, added grains, commercial | 17.7 |
| 12210008 | Bread, from rye flour, added grains, commercial, toasted | 20.8 |
| 12210009 | Bread, pumpernickel, commercial | 48.0 |
| 12210010 | Bread, pumpernickel, commercial, toasted | 56.5 |
| 12212 | Breads, and bread rolls, rye, not stated as to fortification | |
| 12212001 | Bread, from rye flour, organic, commercial | 25.3 |
| 12212002 | Bread, from rye flour, organic, commercial, toasted | 23.3 |
| 12212003 | Bread, from rye flour, homemade from basic ingredients | 32.4 |
| 12212004 | Bread, from rye flour, homemade from basic ingredients, toasted | 38.2 |
| 12213 | Breads, and bread rolls, gluten free | |
| 12213001 | Bread, gluten free, commercial | 14.0 |
| 12213002 | Bread, gluten free, commercial, toasted | 16.7 |
| 12213003 | Bread, gluten free, with added grains, commercial | 12.9 |
| 12213004 | Bread, gluten free, with added grains, commercial, toasted | 15.2 |
| 12213005 | Bread, gluten free, homemade from basic ingredients | 14.5 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 12213006 | Bread, gluten free, homemade from basic ingredients, toasted | 17.3 |
| 12214 | Breads, and bread rolls, not stated as to major flour or fortification | |
| 12214002 | Bread, commercial, fresh, not further defined | 19.4 |
| 12214003 | Bread, commercial, toasted, not further defined | 22.8 |
| 12214004 | Bread, homemade from basic ingredients, not further defined | 19.2 |
| 12214005 | Bread, homemade from basic ingredients, not further defined, toasted | 22.5 |
| 12214006 | Bread roll, commercial, fresh, not further defined | 13.5 |
| 12214007 | Bread roll, for use in hamburger or hot dog recipes | 4.0 |
| 12214008 | Bread roll, for use in subway sandwich recipes | 21.1 |
| 12214009 | Bread, tortilla, for use in Mexican recipes | 4.0 |
| 12214010 | Bread, fresh, not further defined | 3.6 |
| 12214011 | Bread, toasted, not further defined | 4.2 |
| 123 | English-style muffins, flat breads, and savoury and sweet breads | |
| 12301 | English-style muffins | |
| 12301004 | Muffin, English style, from wholemeal flour, commercial, toasted | 65.4 |
| 12301005 | Muffin, English style, mixed grain, commercial, toasted | 6.5 |
| 12302 | Flat breads (e.g. Pita bread), wheat based | |
| 12302001 | Bread, chapatti, commercial | 32.1 |
| 12302004 | Bread, flat (pita or Lebanese), wholemeal, commercial | 52.0 |
| 12302005 | Bread, flat (pita or Lebanese), wholemeal, commercial, toasted | 61.9 |
| 12302008 | Bread, flat wrap or tortilla, mixed grain | 28.6 |
| 12302009 | Bread, flat wrap or tortilla, mixed grain, toasted | 31.8 |
| 12302010 | Bread, flat wrap or tortilla, wholemeal, commercial | 44.0 |
| 12302011 | Bread, flat wrap or tortilla, wholemeal, commercial, toasted | 48.9 |
| 12302012 | Bread, Roti, commercial | 73.7 |
| 12302015 | Bread, flat, not further defined, commercial | 15.4 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 12302016 | Bread, flat, not further defined, commercial, toasted | 18.2 |
| 12303 | Flat breads (e.g. Pita bread), other cereal flours | |
| 12303004 | Bread, flat wrap or tortilla, rye, commercial | 8.0 |
| 12303005 | Bread, flat wrap or tortilla, rye, commercial, toasted | 8.9 |
| 12307 | Fried bread products and garlic breads | |
| 12307002 | Bread, garlic or herb, homemade, cooked | 17.3 |
| 12307004 | French toast, wholemeal bread, plain | 27.1 |
| 124 | Pasta and pasta products (without sauce) | |
| 12401 | Pasta and noodles, wheat based, other than instant noodles | |
| 12401018 | Pasta, wholemeal wheat flour, plain, dry | 86.0 |
| 12401019 | Pasta, wholemeal wheat flour, plain, boiled from dry, no added salt | 37.2 |
| 12401020 | Pasta, wholemeal wheat flour, plain, boiled from dry, with added salt | 37.2 |
| 12401022 | Pasta, unfilled, for commercial pasta recipes | 1.1 |
| 12401023 | Pasta, unfilled, for homemade pasta recipes | 1.7 |
| 12403 | Pasta and noodles, not wheat based | |
| 12403001 | Noodle, buckwheat or soba, dry | 28.9 |
| 12403002 | Noodle, buckwheat or soba, boiled, drained | 11.2 |
| 125 | Breakfast cereals, ready to eat | |
| 12502 | Breakfast cereal, corn based, fortified | |
| 12502012 | Breakfast cereal, corn based, not further defined | 1.9 |
| 12503 | Breakfast cereal, rice based | |
| 12503001 | Breakfast cereal, puffed or popped rice, no added sugar or salt, unfortified | 100.0 |
| 12504 | Breakfast cereal, rice based, fortified | |
| 12504006 | Breakfast cereal, puffed or popped rice, not further defined | 5.7 |
| 12505 | Breakfast cereal, wheat based | |
| 12505001 | Breakfast cereal, wheat bran, flakes, unfortified | 67.0 |

| Food group code/ identification ^a | Food group name | Whole grain (g) per 100g |
|---|---|-----------------------------|
| 12505002 | Breakfast cereal, whole wheat, biscuit, no added sugar or salt, unfortified | 100.0 |
| 12505003 | Breakfast cereal, whole wheat, biscuit, no added sugar, unfortified | 99.0 |
| 12505004 | Breakfast cereal, whole wheat, biscuit, added sugar & salt, unfortified | 97.0 |
| 12505005 | Breakfast cereal, whole wheat, flakes, no added sugar, unfortified | 99.0 |
| 12505006 | Breakfast cereal, whole wheat, puffed, no added sugar or salt, unfortified | 100.0 |
| 12506 | Breakfast cereal, wheat based, fortified, sugars ≤20 g/100g | |
| 12506001 | Breakfast cereal, wheat bran, flakes, added vitamins B1, B2 B3, B6, & folate, Fe & Zn | 53.0 |
| 12506007 | Breakfast cereal, whole wheat, biscuit, added vitamins B1, B2 & B3 | 96.0 |
| 12506008 | Breakfast cereal, whole wheat, biscuit, added vitamins B1, B2 & B3, Ca, Fe & Zn | 96.0 |
| 12506009 | Breakfast cereal, whole wheat, biscuit, added vitamins B1, B2, B3 & folate, Fe & Zn | 97.0 |
| 12506010 | Breakfast cereal, whole wheat, biscuit, bran, added vitamins B1, B2, B3 & folate & Fe | 57.0 |
| 12506011 | Breakfast cereal, whole wheat, biscuit, not further defined | 94.2 |
| 12506012 | Breakfast cereal, whole wheat, flakes, added vitamins B1, B2, B3 & folate | 99.0 |
| 12506013 | Breakfast cereal, whole wheat, flakes, added vitamins B1, B2, B3, C & folate & Fe | 62.0 |
| 12506014 | Breakfast cereal, whole wheat, small biscuit, added vitamins B1, B2, B3 & folate | 76.0 |
| 12506015 | Breakfast cereal, wheat based, commercial, not further defined | 31.1 |
| 12507 | Breakfast cereal, wheat based, fortified, sugars >20 g/100g | |
| 12507002 | Breakfast cereal, whole wheat, small biscuit, with honey, added vitamins B1, B2, B3 & folate, Fe & Zn | 66.0 |
| 12508 | Breakfast cereal, wheat based, with fruit and/or nuts, unfortified | |
| 12508001 | Breakfast cereal, whole wheat, flakes, added dried fruit &/or nuts, no added sugar, unfortified | 55.0 |
| 12509 | Breakfast cereal, wheat based, with fruit and/or nuts, fortified, sugars ≤25 g/100g | |
| 12509001 | Breakfast cereal, wheat bran, flakes, sultanas, added vitamins B1, B2, B3, B6 & folate, Fe & Zn | 38.0 |
| 12509002 | Breakfast cereal, whole wheat, small biscuit, with apricot, added vitamins B1, B2, B3 & folate, Ca & Fe | 69.0 |
| 12509003 | Breakfast cereal, whole wheat, small biscuit, with berries, added vitamins B1, B2, B3 & folate, Ca & Fe | 71.0 |
| 12509004 | Breakfast cereal, whole wheat, small biscuit, with blackcurrant paste, added vitamins B1, B2, B3 & folate | 73.0 |
| 12509005 | Breakfast cereal, whole wheat, small biscuit, with fruit paste, added vitamins B1, B2, B3 & C & Fe | 50.0 |

| Food group code/ identification ^a | Food group name | Whole grain (g) per 100g |
|---|---|-----------------------------|
| 12509006 | Breakfast cereal, whole wheat, flakes, dried fruit, added vitamins B1, B2, B3, C & folate | 71.0 |
| 12509007 | Breakfast cereal, whole wheat, flakes, dried fruit & nuts, added fibre, vitamins B1, B2, B3 & folate, Ca & Fe | 55.0 |
| 12510 | Breakfast cereal, wheat based, with fruit and/or nuts, fortified, sugars >25 g/100g | |
| 12510001 | Breakfast cereal, wheat bran, flakes, honey & almond, added vitamins B1, B2, B3, B6 & folate, Fe & Zn | 42.0 |
| 12510002 | Breakfast cereal, wheat bran, flakes, sultanas, added vitamins B1, B2, B3 & folate & Fe | 45.0 |
| 12511 | Breakfast cereal, mixed grain | |
| 12511001 | Breakfast cereal, mixed grain (barley & soy), flakes, honey, unfortified | 73.0 |
| 12511002 | Breakfast cereal, mixed grain (wheat & corn), flakes or extruded, no added salt, unfortified | 30.0 |
| 12511004 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes, honey, unfortified | 58.0 |
| 12511005 | Breakfast cereal, oat & whole wheat, biscuit, added salt, unfortified | 98.2 |
| 12512 | Breakfast cereal, mixed grain, fortified, sugars ≤20 g/100g | |
| 12512001 | Breakfast cereal, mixed grain (rice & wheat), flakes, added vitamins B1, B2, B3, B6 & folate, Ca, Fe & Zn | 12.5 |
| 12512002 | Breakfast cereal, mixed grain (wheat, oat, rice & corn), clusters, added vitamins B1, B2, B3, C & folate, Fe & Zn | 57.0 |
| 12512003 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), extruded, added vitamins B1, B2, B3, B6, C, E & folate, Ca, Fe & Zn | 56.6 |
| 12512004 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, added vitamins B1, B2, B3, B6, E & folate, Ca & Fe | 6.0 |
| 12512005 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes, honey, added vitamins B1, B2, B3 & folate & Fe | 44.0 |
| 12512006 | Breakfast cereal, whole wheat, biscuit, multigrain, added vitamins B1, B2, B3 & E & Fe | 72.0 |
| 12513 | Breakfast cereal, mixed grain, fortified, sugars >20 g/100g | |
| 12513001 | Breakfast cereal, mixed grain (wheat & corn), extruded, chocolate malt coating, added vitamins B1, B2, B3, B6, C, E & folate, Ca, Fe & Zn | 53.0 |
| 12513003 | Breakfast cereal, mixed grain (wheat, oat & corn), extruded, added vitamins B1, B2, B3, B6, C & folate, Fe & Zn | 28.0 |
| 12513004 | Breakfast cereal, mixed grain (wheat, oat & corn), extruded, added vitamins B1, B2, B3, B6, C & folate, Ca, Fe & Zn | 30.0 |
| 12513006 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), extruded, honey, added vitamins B1, B2, B3, B6, C, E & folate, Ca, Fe & Zn | 54.0 |
| 12513007 | Breakfast cereal, mixed grain (wheat, oat & corn), extruded, cocoa coating, added B1, B2, B3, B6, C & folate, Ca, Fe & Zn | 31.7 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 12513008 | Breakfast cereal, mixed grain (wheat, corn & rice), extruded, cocoa coating, added vitamins B1, B2, B3, B6, C, E & folate, Ca, Fe, Mg & Zn | 51.0 |
| 12513010 | Breakfast cereal, mixed grain (rice & wheat), flakes, almond & honey, vitamins B1, B2, B3, B6 & folate, Ca, Fe & Zn | 10.6 |
| 12514 | Breakfast cereal, mixed grain, with fruit and/or nuts | |
| 12514001 | Breakfast cereal, mixed grain (barley & oat), flakes, honey, added fruit, nuts & seeds, unfortified | 72.6 |
| 12514002 | Breakfast cereal, mixed grain (wheat & oat), flakes, dried fruit, no added salt, unfortified | 63.0 |
| 12514003 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes, dried fruit, no added salt, unfortified | 63.0 |
| 12514004 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes, cashew, almond, hazelnut & coconut, unfortified | 49.0 |
| 12514005 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes & clusters, apple & raisins, unfortified | 51.0 |
| 12514006 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, added fruit &/or nuts, no added salt, unfortified | 68.0 |
| 12514007 | Muesli, commercial, gluten free | 23.1 |
| 12514008 | Muesli, commercial, toasted, added dried fruit, unfortified | 63.0 |
| 12514009 | Muesli, commercial, toasted, added dried fruit & nuts, unfortified | 62.0 |
| 12514010 | Muesli, commercial, toasted, added nuts, unfortified | 71.6 |
| 12514011 | Muesli, homemade, toasted, added dried fruit | 55.8 |
| 12514012 | Muesli, homemade, toasted, added dried fruit & nuts | 50.0 |
| 12514013 | Muesli, homemade, toasted, added dried fruit & seeds | 49.0 |
| 12514014 | Muesli, homemade, toasted, added dried fruit, nuts & seeds | 44.4 |
| 12514015 | Muesli, homemade, toasted, added nuts & seeds | 52.2 |
| 12514016 | Muesli, commercial, untoasted or natural style, added dried fruit, unfortified | 62.3 |
| 12514017 | Muesli, commercial, untoasted or natural style, added dried fruit, low fat, unfortified | 47.0 |
| 12514018 | Muesli, commercial, untoasted or natural style, added dried fruit & nuts, unfortified | 56.1 |
| 12514019 | Muesli, commercial, untoasted or natural style, added nuts & seeds | 67.8 |
| 12514020 | Muesli, homemade, untoasted or natural, added dried fruit | 62.8 |
| 12514021 | Muesli, homemade, untoasted or natural, added dried fruit & nuts | 55.6 |
| 12514022 | Muesli, homemade, untoasted or natural, added dried fruit & seeds | 54.3 |

| Food group code/ identification ^a | Food group name | Whole grain (g) per 100g |
|---|--|-----------------------------|
| 12514023 | Muesli, homemade, untoasted or natural, added dried fruit, nuts & seeds | 48.8 |
| 12514024 | Muesli, homemade, untoasted or natural, added nuts & seeds | 58.3 |
| 12515 | Breakfast cereal, mixed grain, with fruit and/or nuts, fortified | |
| 12515001 | Breakfast cereal, mixed grain (rice & wheat), flakes, berries, added vitamins B1, B2, B3, B6 & folate, Ca, Fe & Zn | 11.1 |
| 12515002 | Breakfast cereal, mixed grain (rice & wheat), flakes, fruit & nut, added vitamins B1, B2, B3, B6, E & folate, Ca, Fe & Zn | 24.0 |
| 12515003 | Breakfast cereal, mixed grain (rice & wheat), flakes, nuts, added vitamins B1, B2 & B3, Ca & Fe | 60.0 |
| 12515004 | Breakfast cereal, mixed grain (wheat & corn), flakes, berries & sultanas, added vitamins A, B1, B2, B3, B6, E & folate, Ca, Fe & Zn | 36.0 |
| 12515005 | Breakfast cereal, mixed grain (wheat & corn), flakes, sultana, apple & currant, added vitamins B1, B2, B3, B6, E & folate, Ca, Fe & Zn | 34.0 |
| 12515006 | Breakfast cereal, mixed grain (wheat & oat), clusters, almond, added vitamins B1, B2, B3, B6, C, E & folate, Ca, Fe & Zn | 71.0 |
| 12515007 | Breakfast cereal, mixed grain (wheat & oat), flakes, apple, sultana & cranberry, added vitamins B1, B2, B3, B6, C, E & folate | 26.5 |
| 12515008 | Breakfast cereal, mixed grain (wheat & oat), flakes, apricot & sultana, added vitamins B1, B2, B3 & folate & Fe | 63.0 |
| 12515009 | Breakfast cereal, mixed grain (wheat & oat), flakes, berries, added vitamins B1, B2, B3 & folate & Fe | 73.0 |
| 12515011 | Breakfast cereal, mixed grain (wheat, oat & corn), flakes, fruit, added vitamins B1, B2, B3, B6, E & folate, Ca, Fe & Zn | 44.0 |
| 12515012 | Breakfast cereal, mixed grain (wheat, oat & corn), flakes, fruit & nuts, added vitamins B1, B2, B3, C & folate & Fe | 42.0 |
| 12515013 | Breakfast cereal, mixed grain (wheat, oat & corn), flakes, fruit & nuts, added vitamins B1, B2, B3, B6, E & folate, Ca, Fe & Zn | 41.0 |
| 12515014 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes & clusters, apple, added vitamins B1, B2, B3, B6, E & folate, Fe & Zn | 26.2 |
| 12515015 | Breakfast cereal, mixed grain (wheat, oat & corn), flakes & clusters, pomegranate & berries, added vitamins A, B1, B2, B3, B6, E & folate, Ca, Fe & Zn | 61.0 |
| 12515016 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes & clusters, sultanas, added vitamins B1, B2, B3, B6, C & folate, Fe & Zn | 23.5 |
| 12515017 | Breakfast cereal, mixed grain (wheat, rice & oat), flakes, dried fruit, added vitamins B1, B2, B3 & E & Fe | 54.0 |
| 12515018 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), clusters, apple & almonds, added vitamins B1, B2, B3 & folate & Fe | 51.0 |
| 12515019 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), clusters, sultana & berries, added vitamins B1, B2, B3, E & folate, Ca & Fe | 44.0 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 12515020 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes & clusters, honey & macadamias, added vitamins B1, B2, B3, E & folate, Ca & Fe | 52.0 |
| 12515021 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, apricot & coconut, added vitamins B1, B2, B3, E & folate, Ca & Fe | 45.0 |
| 12515022 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, berries, added vitamins B1, B2, B3, E & folate, Ca & Fe | 50.0 |
| 12515023 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, fruit, added vitamins B1, B2, B3 & folate & Fe | 39.0 |
| 12515024 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, fruit, added vitamins B1, B2, B3, & folate, Ca & Fe | 70.0 |
| 12515025 | Breakfast cereal, mixed grain (wheat, corn, rice & oat), flakes, fruit & nuts, added vitamins B1, B2, B3, C & folate & Fe | 54.0 |
| 12515026 | Breakfast cereal, mixed grain, commercial, not further defined | 33.3 |
| 12515027 | Muesli, commercial, toasted, added dried fruit & nuts, added vitamins B2, B3, E & folate & Ca | 48.0 |
| 12516 | Breakfast cereal, other | |
| 12516001 | Breakfast cereal, barley, flakes, honey, added sultanas, unfortified | 70.9 |
| 12516003 | Breakfast cereal, not further defined | 52.7 |
| 126 | Breakfast cereals, hot porridge style | |
| 12601 | Porridge style, oat based | |
| 12601001 | Porridge, rolled oats, prepared with water | 18.5 |
| 12601002 | Porridge, rolled oats, prepared with regular fat cows milk | 17.3 |
| 12601003 | Porridge, rolled oats, prepared with reduced fat cows milk | 17.3 |
| 12601004 | Porridge, rolled oats, prepared with skim cows milk | 17.1 |
| 12601005 | Porridge, rolled oats, prepared with cows milk | 17.7 |
| 12601006 | Porridge, rolled oats, prepared with rice milk | 29.7 |
| 12601007 | Porridge, rolled oats, prepared with soy milk | 17.3 |
| 12601008 | Porridge, rolled oats, prepared with cows milk & water | 17.5 |
| 12601009 | Porridge, rolled oats, prepared with soy milk & water | 17.5 |
| 12601010 | Porridge, rolled oats, with added fibre & Ca, prepared with cows milk | 13.8 |
| 12601011 | Porridge, rolled oats mixed with sugar or honey & other flavours, prepared with water | 16.6 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 12601012 | Porridge, rolled oats mixed with sugar or honey & other flavours, prepared with cows milk | 16.3 |
| 12601013 | Porridge, rolled oats mixed with sugar or honey & other flavours, prepared with soy milk | 16.3 |
| 12601014 | Porridge, rolled oats mixed with sugar, flavours & dried fruit, prepared with water | 15.3 |
| 12601015 | Porridge, rolled oats mixed with sugar, flavours & dried fruit, prepared with cows milk | 15.1 |
| 12601016 | Porridge, rolled oats mixed with sugar, flavours & dried fruit, prepared with soy milk | 15.1 |
| 12601017 | Oats, rolled, mixed with sugar or honey & other flavours, uncooked | 73.0 |
| 12601018 | Oats, rolled, mixed with sugar, flavours & dried fruit, uncooked | 69.7 |
| 12602 | Porridge style, other cereals | |
| 12602002 | Porridge, brown rice, with added dry fruit, cooked with cows milk | 12.3 |
| 12602003 | Rice, ground brown rice, with added dry fruit, uncooked | 83.0 |
| 13 | CEREAL BASED PRODUCTS AND DISHES | |
| 131 | Sweet biscuits | |
| 13101 | Sweet biscuits, plain or flavoured including short bread varieties | |
| 13101001 | Biscuit, sweet, Anzac style, commercial | 14.3 |
| 13101002 | Biscuit, sweet, Anzac style, homemade from basic ingredients, fat not further defined | 14.3 |
| 13101011 | Biscuit, sweet, oatmeal, commercial | 12.5 |
| 13101022 | Biscuit, sweet, wheatmeal, commercial | 18.0 |
| 13101024 | Biscuit, sweet, not further defined | 1.5 |
| 13105 | Sweet biscuits, chocolate-coated, chocolate chip | |
| 13105010 | Biscuit, sweet, wheatmeal, chocolate-coated, commercial | 12.6 |
| 13106 | Sweet biscuits, chocolate-coated, chocolate or cream filled | |
| 13106007 | Biscuit, sweet, chocolate, commercial, not further defined | 0.2 |
| 132 | Savoury biscuits | |
| 13201 | Savoury biscuits, wheat based, plain, energy ≤1800 kJ per 100 g | |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 13201008 | Biscuit, savoury, from wholemeal wheat flour | 37.0 |
| 13201009 | Biscuit, savoury, from wholemeal wheat flour, added grains | 43.5 |
| 13201010 | Biscuit, savoury, from wholemeal wheat flour, crispbread | 81.7 |
| 13201011 | Biscuit, savoury, from wholemeal wheat flour, Salada style, high fibre | 26.0 |
| 13201013 | Biscuit, savoury, not further defined | 12.4 |
| 13203 | Savoury biscuits, rye based | |
| 13203001 | Biscuit, savoury, from rye flour, crispbread | 90.0 |
| 13203002 | Biscuit, savoury, from rye flour, crispbread, with added grains (buckwheat, linseed, soy, sesame) | 79.3 |
| 13204 | Savoury biscuits, rice based (includes rice cakes) | |
| 13204001 | Biscuit, savoury, rice cake, from brown rice, plain | 96.7 |
| 13204002 | Biscuit, savoury, rice cake, from brown rice, flavoured | 82.0 |
| 13204003 | Biscuit, savoury, rice cake, from brown rice, carob coated | 48.3 |
| 13204009 | Biscuit, savoury, rice cracker, from brown rice, all flavours | 67.6 |
| 13204010 | Biscuit, savoury, rice cracker, not further defined | 2.5 |
| 133 | Cakes, muffins, scones, cake-type desserts | |
| 13305 | Cake-type desserts | |
| 13305008 | Dumpling, sweet, soaked in syrup | 8.7 |
| 13306 | Slices, biscuit and cake-type | |
| 13306023 | Slice, muesli, with sultanas & apricot, homemade from basic ingredients, fat not further defined | 20.6 |
| 13306025 | Slice, oat, with caramel, marshmallow & chocolate, homemade from basic ingredients, fat not further defined | 10.7 |
| 13306029 | Slice, not further defined | 3.2 |
| 13307 | Scones and rock cakes, plain or with added fruit or vegetables only | |
| 13307010 | Scone, wholemeal, commercial | 66.8 |
| 13307011 | Scone, wholemeal, homemade from basic ingredients | 61.6 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 134 | Pastries | |
| 13401 | Pastry, plain/unfilled, all types | |
| 13401021 | Pastry, shortcrust, wholemeal, commercial, raw | 55.3 |
| 13401022 | Pastry, shortcrust, wholemeal, commercial, baked | 62.8 |
| 135 | Mixed dishes where cereal is the major ingredient | |
| 13501 | Pizza, saturated fat ≤ 5 g/100 g | |
| 13501041 | Pizza, vegetable, gluten free base, takeaway style & homemade | 8.8 |
| 13503 | Sandwiches and filled rolls, saturated fat ≤ 5 g/100 g | |
| 13503002 | Filled bread roll, commercial, bacon & egg, no sauce | 14.1 |
| 13503003 | Filled bread roll, commercial, bacon & egg, water based sauce | 13.5 |
| 13503004 | Filled bread roll, commercial, bacon & egg, cheese, water based sauce | 12.1 |
| 13503005 | Filled bread roll, commercial, beef, no sauce | 8.4 |
| 13503006 | Filled bread roll, commercial, beef, water based sauce | 8.1 |
| 13503007 | Filled bread roll, commercial, beef, cheese, no sauce | 7.5 |
| 13503008 | Filled bread roll, commercial, beef, cheese, oil based sauce | 7.3 |
| 13503009 | Filled bread roll, commercial, beef, cheese & water based sauce | 7.3 |
| 13503010 | Filled bread roll, commercial, chicken & no sauce | 13.0 |
| 13503011 | Filled bread roll, commercial, chicken & oil based sauce | 12.5 |
| 13503012 | Filled bread roll, commercial, chicken & water based sauce | 12.5 |
| 13503013 | Filled bread roll, commercial, chicken, cheese & no sauce | 11.6 |
| 13503014 | Filled bread roll, commercial, chicken, cheese & oil based sauce | 11.2 |
| 13503015 | Filled bread roll, commercial, chicken, cheese & water based sauce | 11.2 |
| 13503016 | Filled bread roll, commercial, crumbed chicken, no sauce | 12.3 |
| 13503017 | Filled bread roll, commercial, crumbed chicken, cheese & no sauce | 11.1 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 13503018 | Filled bread roll, commercial, crumbed chicken, cheese & oil based sauce | 10.7 |
| 13503019 | Filled bread roll, commercial, crumbed chicken, cheese & water based sauce | 10.7 |
| 13503020 | Filled bread roll, commercial, ham & salami, cheese, oil based sauce | 11.2 |
| 13503021 | Filled bread roll, commercial, ham & salami, cheese, water based sauce | 11.2 |
| 13503022 | Filled bread roll, commercial, ham, oil based sauce | 15.7 |
| 13503023 | Filled bread roll, commercial, ham, cheese, no sauce | 11.6 |
| 13503024 | Filled bread roll, commercial, ham, cheese, oil based sauce | 11.2 |
| 13503025 | Filled bread roll, commercial, ham, cheese, water based sauce | 11.2 |
| 13503026 | Filled bread roll, commercial, meatball & no sauce | 11.6 |
| 13503027 | Filled bread roll, commercial, meatball, cheese, no sauce | 10.5 |
| 13503028 | Filled bread roll, commercial, meatball, cheese & oil based sauce | 10.2 |
| 13503029 | Filled bread roll, commercial, meatball, cheese & water based sauce | 10.2 |
| 13503030 | Filled bread roll, commercial, tuna & water based sauce | 10.4 |
| 13503031 | Filled bread roll, commercial, tuna, cheese & no sauce | 9.8 |
| 13503032 | Filled bread roll, commercial, tuna, cheese & oil based sauce | 9.5 |
| 13503033 | Filled bread roll, commercial, vegetable & water based sauce | 11.2 |
| 13503034 | Filled bread roll, commercial, vegetable, cheese & no sauce | 10.5 |
| 13503035 | Filled bread roll, commercial, vegetable, cheese & oil based sauce | 10.2 |
| 13503036 | Filled bread roll, commercial, vegetable, cheese & water based sauce | 10.2 |
| 13503053 | Sandwich or roll, filled with chicken | 11.1 |
| 13503054 | Sandwich or roll, filled with chicken & salad | 7.5 |
| 13503055 | Sandwich or roll, filled with egg | 9.4 |
| 13503056 | Sandwich or roll, filled with ham | 14.2 |
| 13503057 | Sandwich or roll, filled with ham & cheese, toasted | 10.1 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 13503058 | Sandwich or roll, filled with ham & salad | 8.8 |
| 13503059 | Sandwich or roll, filled with ham & tomato, toasted | 12.5 |
| 13503060 | Sandwich or roll, filled with peanut butter | 15.5 |
| 13503061 | Sandwich or roll, filled with roast beef or lamb | 8.3 |
| 13503062 | Sandwich or roll, filled with roast beef or lamb & salad | 6.1 |
| 13503063 | Sandwich or roll, filled with salad | 7.1 |
| 13503064 | Sandwich or roll, filled with tuna | 9.0 |
| 13503065 | Sandwich or roll, filled with tuna & salad | 6.5 |
| 13503066 | Sandwich or roll, filled with vegemite | 16.7 |
| 13503067 | Sandwich or roll, not further defined | 10.6 |
| 13503068 | Wrap, filled, not further defined | 5.0 |
| 13503070 | Sandwich or roll, filled with canned spaghetti, toasted | 7.1 |
| 13504 | Sandwiches and filled rolls, saturated fat >5 g/100 g | |
| 13504003 | Sandwich or roll, filled with cheese | 13.0 |
| 13504004 | Sandwich or roll, filled with cheese, toasted | 15.5 |
| 13504005 | Sandwich or roll, filled with ham & cheese | 10.9 |
| 13504006 | Sandwich or roll, filled with vegemite & cheese | 12.3 |
| 13504007 | Sandwich or roll, not further defined, toasted | 14.3 |
| 13505 | Burgers, saturated fat ≤5 g/100 g | |
| 13505001 | Bacon burger, bread roll, bacon rasher, with cheese, takeaway & homemade | 2.5 |
| 13505002 | Bacon burger, bread roll, bacon rasher, with cheese & salad, takeaway & homemade | 1.6 |
| 13505003 | Bacon burger, bread roll, bacon rasher, with salad, takeaway & homemade | 1.7 |
| 13505016 | Chicken burger, bread roll, chicken fillet or patty, takeaway & homemade | 2.0 |
| 13505017 | Chicken burger, bread roll, chicken fillet or patty & salad, takeaway & homemade | 3.7 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 13505018 | Chicken burger, bread roll, chicken fillet or patty, with bacon & salad, takeaway & homemade | 1.3 |
| 13505019 | Chicken burger, bread roll, chicken fillet or patty & cheese, takeaway & homemade | 1.9 |
| 13505020 | Chicken burger, bread roll, chicken fillet or patty, with cheese & salad, takeaway & homemade | 1.7 |
| 13505031 | Hamburger, bread roll, beef patty, takeaway & homemade | 2.2 |
| 13505032 | Hamburger, bread roll, beef patty, with avocado & cheese, takeaway & homemade | 1.9 |
| 13505033 | Hamburger, bread roll, beef patty, with avocado, cheese & salad, takeaway & homemade | 1.4 |
| 13505034 | Hamburger, bread roll, beef patty, with bacon & cheese, takeaway & homemade | 1.8 |
| 13505035 | Hamburger, bread roll, beef patty, with bacon, cheese & salad, takeaway & homemade | 1.3 |
| 13505036 | Hamburger, bread roll, beef patty, with bacon & salad, takeaway & homemade | 1.4 |
| 13505037 | Hamburger, bread roll, beef patty, with cheese, takeaway & homemade | 2.0 |
| 13505038 | Hamburger, bread roll, beef patty, with cheese & salad, takeaway & homemade | 0.1 |
| 13505039 | Hamburger, bread roll, beef patty, with egg & salad, takeaway & homemade | 1.3 |
| 13505041 | Hamburger, bread roll, goat fillet or patty, with salad, takeaway & homemade | 1.5 |
| 13505042 | Hamburger, bread roll, lamb fillet or patty, takeaway & homemade | 2.2 |
| 13505043 | Hamburger, bread roll, lamb fillet or patty, with cheese, takeaway & homemade | 2.0 |
| 13505044 | Hamburger, bread roll, lamb fillet or patty, with cheese & salad, takeaway & homemade | 1.4 |
| 13505045 | Hamburger, bread roll, lamb fillet or patty, with salad, takeaway & homemade | 1.5 |
| 13505046 | Hamburger, bread roll, processed meat, with onion, takeaway & homemade | 1.9 |
| 13505055 | Vegetable or lentil burger, bread roll, vegetable patty, takeaway & homemade | 1.4 |
| 13505056 | Vegetable or lentil burger, bread roll, vegetable patty, with cheese, takeaway & homemade | 2.7 |
| 13505057 | Vegetable or lentil burger, bread roll, vegetable patty, with cheese & salad, takeaway & homemade | 1.9 |
| 13505058 | Vegetable or lentil burger, bread roll, vegetable patty, with salad, takeaway & homemade | 2.0 |
| 13505060 | Bacon burger, bread roll, bacon rasher, with egg, takeaway & homemade | 2.2 |
| 13505061 | Fish burger, bread roll, with salad & mayonnaise, takeaway & homemade | 1.4 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 13507 | Taco and tortilla-based dishes, saturated fat ≤5 g/100 g | |
| 13507005 | Mexican nachos, corn chips, with salsa | 13.0 |
| 13507014 | Mexican wrap, bean, with cheese, guacamole, salad & salsa | 0.8 |
| 13507015 | Mexican wrap, bean, with cheese & salsa | 1.2 |
| 13507016 | Mexican wrap, bean, with cheese, salad & salsa | 0.9 |
| 13507017 | Mexican wrap, bean, with salad & salsa | 1.0 |
| 13507018 | Mexican wrap, beef & bean, with cheese, salad & salsa | 0.9 |
| 13507019 | Mexican wrap, beef, with cheese & salsa | 1.2 |
| 13507020 | Mexican wrap, beef, with cheese, salad & salsa | 0.9 |
| 13507021 | Mexican wrap, beef, with cheese, guacamole & salsa | 1.0 |
| 13507022 | Mexican wrap, beef, with cheese, guacamole, salad & salsa | 0.8 |
| 13507023 | Mexican wrap, beef, with salad & salsa | 0.9 |
| 13507024 | Mexican wrap, beef & bean, with cheese & salsa | 1.2 |
| 13507025 | Mexican wrap, beef & bean, with cheese, guacamole, salad & salsa | 0.8 |
| 13507026 | Mexican wrap, beef & bean, with salad & salsa | 0.9 |
| 13507027 | Mexican wrap, chicken, with cheese & salsa | 1.2 |
| 13507028 | Mexican wrap, chicken, with cheese, salad & salsa | 0.9 |
| 13507029 | Mexican wrap, chicken, with cheese, guacamole & salsa | 1.0 |
| 13507030 | Mexican wrap, chicken, with cheese, guacamole, salad & salsa | 0.8 |
| 13507031 | Mexican wrap, chicken, with salad & salsa | 0.9 |
| 13507032 | Mexican wrap, chicken & bean, with cheese & salsa | 1.3 |
| 13507033 | Mexican wrap, chicken & bean, with cheese, salad & salsa | 0.9 |
| 13507034 | Mexican wrap, chicken & bean, with salad & salsa | 0.9 |
| 13507035 | Mexican wrap, fish, with cheese, guacamole, salad & salsa | 0.8 |

| Food group code/ identification ^a | Food group name | Whole grain (g) per 100g |
|---|--|-----------------------------|
| 13507036 | Mexican wrap, with cheese, guacamole, salad & salsa | 1.0 |
| 13508 | Taco and tortilla-based dishes, saturated fat >5 g/100 g | |
| 13508001 | Mexican nachos, corn chips, beans, with cheese & salsa | 7.9 |
| 13508002 | Mexican nachos, corn chips, beans, with cheese, guacamole & salsa | 6.7 |
| 13508003 | Mexican nachos, corn chips, beef, with cheese & salsa | 6.8 |
| 13508004 | Mexican nachos, corn chips, beef, with cheese, guacamole & salsa | 5.9 |
| 13508005 | Mexican nachos, corn chips, beef & bean, with cheese & salsa | 6.9 |
| 13508006 | Mexican nachos, corn chips, beef & bean, with cheese, guacamole & salsa | 6.0 |
| 13508007 | Mexican nachos, corn chips, with cheese, guacamole, salad & salsa | 8.3 |
| 13508008 | Mexican nachos, corn chips, with cheese & salsa | 10.8 |
| 13508009 | Mexican nachos, corn chips, with cheese, salad & salsa | 8.2 |
| 13508012 | Mexican wrap, with cheese & salsa | 2.0 |
| 13509 | Savoury pasta/noodle and sauce dishes, saturated fat ≤5 g/100 g | |
| 13509013 | Pasta dish, commercial, cooked unfilled pasta, beef bolognese sauce | 0.6 |
| 13509014 | Pasta dish, commercial, cooked unfilled pasta, beef bolognese sauce & added vegetables | 0.6 |
| 13509015 | Pasta dish, homemade, cooked unfilled pasta, commercial beef bolognese sauce | 0.8 |
| 13509016 | Pasta dish, homemade, cooked unfilled pasta, commercial beef bolognese sauce & added vegetables | 0.9 |
| 13509017 | Pasta dish, homemade, cooked unfilled pasta, homemade beef bolognese sauce | 0.9 |
| 13509018 | Pasta dish, homemade, cooked unfilled pasta, homemade beef bolognese sauce & added vegetables | 0.9 |
| 13509019 | Pasta dish, commercial, cooked unfilled pasta, carbonara sauce, added chicken, with or without added vegetables | 0.6 |
| 13509020 | Pasta dish, commercial, cooked unfilled pasta, dairy based sauce, added chicken, with or without added vegetables | 0.5 |
| 13509021 | Pasta dish, commercial, cooked unfilled pasta, dairy based sauce, added seafood, with or without added vegetables | 0.5 |
| 13509022 | Pasta dish, homemade, cooked unfilled pasta, commercial dairy based sauce | 0.9 |
| 13509023 | Pasta dish, homemade, cooked unfilled pasta, commercial dairy based sauce, added bacon, with or without added vegetables | 0.8 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 13509024 | Pasta dish, homemade, cooked unfilled pasta, commercial dairy based sauce, added chicken, with or without added vegetables | 0.8 |
| 13509025 | Pasta dish, homemade, cooked unfilled pasta, commercial dairy based sauce, added meat, with or without added vegetables | 0.8 |
| 13509026 | Pasta dish, homemade, cooked unfilled pasta, commercial dairy based sauce, added seafood, with or without added vegetables | 0.8 |
| 13509027 | Pasta dish, homemade, cooked unfilled pasta, commercial dairy based sauce, added vegetables | 0.9 |
| 13509028 | Pasta dish, homemade, cooked unfilled pasta, homemade dairy based sauce, added bacon, with or without added vegetables | 0.7 |
| 13509029 | Pasta dish, homemade, cooked unfilled pasta, homemade dairy based sauce, added chicken, with or without added vegetables | 0.9 |
| 13509030 | Pasta dish, homemade, cooked unfilled pasta, homemade dairy based sauce, added meat, with or without added vegetables | 0.9 |
| 13509031 | Pasta dish, homemade, cooked unfilled pasta, homemade dairy based sauce, added seafood, with or without added vegetables | 0.9 |
| 13509032 | Pasta dish, homemade, cooked unfilled pasta, homemade dairy based sauce, added vegetables | 0.8 |
| 13509033 | Pasta dish, cooked unfilled pasta, oil based sauce | 1.2 |
| 13509034 | Pasta dish, cooked unfilled pasta, oil based sauce, added bacon, with or without added vegetables | 0.8 |
| 13509035 | Pasta dish, cooked unfilled pasta, oil based sauce, added chicken, with or without added vegetables | 0.8 |
| 13509036 | Pasta dish, cooked unfilled pasta, oil based sauce, added seafood, with or without added vegetables | 0.8 |
| 13509037 | Pasta dish, cooked unfilled pasta, oil based sauce, added vegetables | 0.9 |
| 13509038 | Pasta dish, commercial, cooked unfilled pasta, tomato based sauce | 0.7 |
| 13509039 | Pasta dish, commercial, cooked unfilled pasta, tomato based sauce, added bacon, with or without added vegetables | 0.6 |
| 13509040 | Pasta dish, commercial, cooked unfilled pasta, tomato based sauce, added chicken, with or without added vegetables | 0.6 |
| 13509041 | Pasta dish, commercial, cooked unfilled pasta, tomato based sauce, added seafood, with or without added vegetables | 0.6 |
| 13509042 | Pasta dish, commercial, cooked unfilled pasta, tomato based sauce, added vegetables | 0.6 |
| 13509043 | Pasta dish, homemade, cooked unfilled pasta, commercial tomato based sauce | 0.9 |

| Food group code/ identification ^a | Food group name | Whole grain (g) per 100g |
|---|--|-----------------------------|
| 13509044 | Pasta dish, homemade, cooked unfilled pasta, commercial tomato based sauce, added bacon, with or without added vegetables | 0.9 |
| 13509045 | Pasta dish, homemade, cooked unfilled pasta, commercial tomato based sauce, added chicken, with or without added vegetables | 0.8 |
| 13509046 | Pasta dish, homemade, cooked unfilled pasta, commercial tomato based sauce, added seafood, with or without added vegetables | 0.8 |
| 13509047 | Pasta dish, homemade, cooked unfilled pasta, commercial tomato based sauce, added vegetables | 0.9 |
| 13509048 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce | 0.0 |
| 13509049 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce, added bacon, with or without added vegetables | 0.9 |
| 13509050 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce, added chicken, with or without added vegetables | 0.9 |
| 13509051 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce, added liver, with or without added vegetables | 1.0 |
| 13509052 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce, added mixed seafood, with or without added vegetables | 0.9 |
| 13509053 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce, added salmon or tuna, with or without added vegetables | 0.9 |
| 13509054 | Pasta dish, homemade, cooked unfilled pasta, homemade tomato based sauce, added vegetables | 0.9 |
| 13509055 | Pasta dish, cooked unfilled pasta, commercial tomato based sauce, added meat | 0.7 |
| 13509056 | Pasta dish, cooked unfilled pasta, homemade tomato based sauce, added meat | 0.8 |
| 13509067 | Pasta dish, not further defined | 0.8 |
| 13510 | Savoury pasta/noodle and sauce dishes, saturated fat >5 g/100 g | |
| 13510001 | Pasta dish, commercial, cooked unfilled pasta, carbonara sauce, added bacon, with or without added vegetables | 0.6 |
| 13510002 | Pasta dish, homemade, cooked unfilled pasta, homemade carbonara sauce, added bacon, with or without added vegetables | 0.9 |
| 13510003 | Pasta dish, commercial, cooked unfilled pasta, dairy based sauce | 0.6 |
| 13510004 | Pasta dish, commercial, cooked unfilled pasta, dairy based sauce, added bacon, with or without added vegetables | 0.6 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 13510005 | Pasta dish, commercial, cooked unfilled pasta, dairy based sauce, added vegetables | 0.6 |
| 13510006 | Pasta dish, homemade, cooked unfilled pasta, homemade dairy based sauce | 0.8 |
| 13511 | Savoury rice-based dishes, saturated fat ≤5 g/100 g | |
| 13511004 | Rice, brown, fried, no meat or vegetables, oil not further defined, homemade | 50.4 |
| 13511005 | Rice, brown, fried with bacon or ham, egg & mixed vegetables | 21.4 |
| 13511006 | Rice, brown, fried with chicken, egg & mixed vegetables | 18.3 |
| 13511007 | Rice, brown, fried with mixed vegetables | 26.3 |
| 13511030 | Salad, rice, with vegetables, added dressing | 9.4 |
| 136 | Batter-based products | |
| 13601 | Pancakes, crepes and dishes | |
| 13601003 | Crepe or pancake, buckwheat flour, homemade from basic ingredients | 36.6 |
| 13601013 | Crepe or pancake, wholemeal wheat flour, commercial or homemade | 36.6 |
| 13606 | Crumpets | |
| 13606003 | Crumpet, from wholemeal flour, commercial, toasted | 22.2 |
| 15 | FISH AND SEAFOOD PRODUCTS AND DISHES | |
| 151 | Fin fish (excluding commercially sterile) | |
| 15602 | Mixed dishes with fish as the major component, with rice, pasta or noodles | |
| 15602001 | Casserole, homemade, salmon or tuna & vegetable, homemade sauce, with rice or pasta | 0.3 |
| 15602002 | Casserole, homemade, salmon or tuna & vegetable, commercial sauce, with rice or pasta | 0.4 |
| 15602003 | Curry, homemade, fish, homemade sauce, with rice or noodles | 0.3 |
| 15602004 | Curry, homemade, fish & rice | 0.5 |
| 15602005 | Curry, homemade, fish & vegetable, homemade tomato based sauce, with rice or noodles | 0.3 |
| 15602009 | Stir-fry, homemade, fish & vegetable, with rice or noodles | 0.3 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 15604 | Mixed seafood dishes with crustacea, molluscs or other seafood products as the major component, with rice, pasta or noodles | |
| 15604002 | Curry, homemade, prawn & vegetable, homemade tomato based sauce, with rice or noodles | 0.3 |
| 15604004 | Stir-fry, homemade, prawn & vegetable, with rice or noodles | 0.2 |
| 15604005 | Stir-fry, homemade, seafood & vegetable, with rice or noodles | 0.4 |
| 16 | FRUIT PRODUCTS AND DISHES | |
| 169 | Mixed dishes where fruit is the major component | |
| 16901 | Mixed dishes where fruit is the major component | |
| 16901003 | Crumble, apple, baked, homemade | 2.7 |
| 16901004 | Crumble, apple & berry, baked, homemade | 2.7 |
| 16901005 | Crumble, apple & rhubarb, baked, homemade | 2.7 |
| 16901006 | Crumble, stone fruits, baked, homemade | 3.2 |
| 18 | MEAT, POULTRY AND GAME PRODUCTS AND DISHES | |
| 187 | Mixed dishes where beef, sheep, pork or mammalian game is the major component | |
| 18702 | Beef dishes, added pasta, noodles or rice | |
| 18702001 | Casserole, homemade, beef, homemade tomato based sauce, with rice or pasta | 0.3 |
| 18702002 | Casserole, homemade or commercial, beef & mushroom, homemade cream based sauce, with rice or pasta | 0.3 |
| 18702003 | Casserole, homemade, beef & vegetable, homemade cream based sauce, with rice or pasta | 0.3 |
| 18702004 | Casserole, homemade, beef & vegetable, homemade gravy, with rice or pasta | 0.3 |
| 18702005 | Casserole, homemade, beef & vegetable, homemade tomato based sauce, with rice or pasta | 0.3 |
| 18702006 | Casserole, homemade, beef, vegetable & legume, homemade sauce, with rice or pasta | 0.3 |
| 18702007 | Curry, homemade, beef & vegetable, commercial sauce, with rice or noodles | 0.3 |
| 18702008 | Curry, homemade, beef & vegetable, homemade coconut milk based sauce, with rice or noodles | 0.3 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|-------------------------------------|
| 18702009 | Curry or casserole, homemade, beef & pasta, not further defined | 0.0 |
| 18702010 | Curry or casserole, homemade, beef & rice, not further defined | 0.4 |
| 18702016 | Stir-fry, homemade, beef, with rice or noodles | 0.3 |
| 18702018 | Stir-fry, homemade, beef & vegetable, with rice | 0.4 |
| 18702019 | Stir-fry, homemade, beef, vegetable & egg, with rice or noodles | 0.2 |
| 18702020 | Casserole or curry, homemade, beef & vegetable, homemade gravy, with rice or pasta | 0.4 |
| 18702021 | Stir-fry, homemade, beef & vegetable, with rice | 0.5 |
| 18706 | Lamb or mutton dishes, added pasta, noodles or rice | |
| 18706001 | Casserole, homemade, lamb & vegetable, tomato based sauce, with rice or pasta | 0.3 |
| 18706002 | Curry, homemade, lamb & rice | 0.5 |
| 18706003 | Curry, homemade, lamb & vegetable, homemade dairy based sauce, with rice or noodles | 0.3 |
| 18706004 | Roast dinner, commercial or homemade, lamb, vegetables, gravy & grains | 0.4 |
| 18706005 | Stir-fry, homemade, lamb & vegetable, with rice or noodles | 0.3 |
| 18709 | Pork dishes, added pasta, noodles or rice | |
| 18709002 | Mixed dish, homemade, pork & rice, not further defined | 0.4 |
| 18709004 | Stir-fry, homemade, pork & vegetable, with rice or noodles | 0.3 |
| 18711 | Mammalian game meat, mixed dishes | |
| 18711005 | Curry, homemade, goat, homemade sauce, with rice or noodles | 0.3 |
| 188 | Mixed dishes where sausage, bacon, ham or other processed meat is the major component | |
| 18802 | Sausage dishes with gravy, sauce or vegetables, added pasta, noodles or rice | |
| 18802001 | Casserole, homemade, sausage & vegetable, homemade sauce, with rice or pasta | 0.3 |
| 189 | Mixed dishes where poultry or feathered game is the major component | |
| 18902 | Poultry dishes, with gravy, sauce or vegetables, added pasta, noodles or rice | |
| 18902001 | Casserole, commercial, chicken & vegetable, with rice or pasta | 0.4 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 18902002 | Casserole, homemade, chicken & vegetable, homemade gravy, with rice or pasta | 0.3 |
| 18902003 | Casserole, homemade, chicken & vegetable, homemade cream based sauce, with rice or pasta | 0.3 |
| 18902004 | Casserole, homemade, chicken & vegetable, homemade fruit sauce, with rice or pasta | 0.4 |
| 18902005 | Casserole, homemade, chicken & vegetable, homemade tomato based sauce, with rice or pasta | 0.4 |
| 18902007 | Curry, homemade, chicken, commercial sauce, with rice or noodles | 0.3 |
| 18902008 | Curry, homemade, chicken, homemade coconut milk sauce, with rice or noodles | 0.3 |
| 18902009 | Curry, homemade, chicken & rice | 0.5 |
| 18902010 | Curry, homemade, chicken & vegetable, commercial sauce, with rice or noodles | 0.3 |
| 18902011 | Curry, homemade, chicken & vegetable, homemade coconut milk sauce, with rice or noodles | 0.3 |
| 18902012 | Curry, homemade, chicken & vegetable, homemade dairy based sauce, with rice or noodles | 0.3 |
| 18902013 | Curry, homemade, chicken & vegetable, homemade tomato based sauce, with rice or noodles | 0.3 |
| 18902014 | Curry, homemade, chicken, vegetable & legume, homemade sauce, with rice or noodles | 0.3 |
| 18902020 | Stir-fry, commercial, chicken, with rice or noodles | 0.3 |
| 18902022 | Stir-fry, homemade, chicken, with rice or noodles | 0.2 |
| 18902023 | Stir-fry, homemade, chicken & vegetable, commercial or homemade satay sauce, with rice or noodles | 0.3 |
| 18902025 | Stir-fry, homemade, chicken & vegetable, with rice | 0.4 |
| 18902026 | Casserole or curry, homemade, chicken & vegetable, homemade gravy, with rice or pasta | 0.4 |
| 19 | MILK PRODUCTS AND DISHES | |
| 192 | Yoghurt | |
| 19206 | Yoghurt, flavoured or added fruit with added cereal, full fat | |
| 19206001 | Yoghurt, apple & cinnamon flavoured, regular fat (~3%), added cereals | 1.0 |
| 19206002 | Yoghurt, banana & honey flavoured, regular fat (~3%), added cereals | 1.0 |
| 19206003 | Yoghurt, berry flavoured, regular fat (~3%), added cereals | 1.1 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 20 | DAIRY & MEAT SUBSTITUTES | |
| 201 | Dairy milk substitutes, unflavoured | |
| 20106 | Cereal- or nut-based milk substitute | |
| 20106002 | Milk, oat, fluid, unfortified | 12.0 |
| 20106003 | Milk, oat, fluid, added calcium | 11.8 |
| 20106004 | Milk, rice, fluid, added calcium | 13.0 |
| 20106005 | Milk, rice, fluid, protein enriched, added calcium | 11.0 |
| 21 | SOUP | |
| 211 | Soup, homemade from basic ingredients | |
| 21101 | Soup containing meat, poultry or seafood | |
| 21101002 | Soup, beef & vegetable, with pasta or grains, prepared with stock or water, homemade from basic ingredients | 0.1 |
| 21101004 | Soup, beef, vegetable & legume, with pasta or grains, prepared with stock or water, homemade | 0.1 |
| 21101008 | Soup, chicken & vegetable, with grains or pasta, prepared with stock or water, homemade from basic ingredients | 0.3 |
| 21101010 | Soup, chicken, vegetable & legume, with grains or pasta, prepared with stock or water, homemade | 0.1 |
| 21101011 | Soup, fish, prepared with stock or water, homemade from basic ingredients | 0.2 |
| 21101013 | Soup, ham & vegetable, with pasta or grains, prepared with stock or water, homemade from basic ingredients | 0.1 |
| 21101015 | Soup, lamb & vegetable, with grains or pasta, prepared with stock or water, homemade from basic ingredients | 0.1 |
| 21101021 | Soup, pork & vegetable, with grains or pasta, prepared with stock or water, homemade from basic ingredients | 0.1 |
| 21101023 | Soup, seaweed, with or without meat, vegetables & grains or pasta | 0.2 |
| 21102 | Soup, vegetable only | |
| 21102008 | Soup, mixed vegetable & legume, with pasta or grains, prepared with stock or water, homemade from basic ingredients | 0.1 |
| 21102009 | Soup, mixed vegetable & pasta or grains, prepared with stock or water, homemade from basic ingredients | 0.1 |
| 215 | Soup, commercially sterile, prepared from condensed or sold ready to eat | |
| 21501 | Soup containing meat, poultry or seafood | |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 21501001 | Soup, chicken & noodle, ready to eat, canned | 0.2 |
| 21502 | Soup, vegetable only | |
| 21502007 | Soup, vegetable, ready to eat, canned | 0.2 |
| 23 | SAVOURY SAUCES AND CONDIMENTS | |
| 235 | Dips | |
| 23501 | Dairy based dips | |
| 23501010 | Dip, tomato &/or capsicum, homemade | 1.0 |
| 24 | VEGETABLE PRODUCTS AND DISHES | |
| 249 | Dishes where vegetable is the major component | |
| 24901 | Vegetables and sauce | |
| 24901006 | Curry, homemade, okra, with rice or noodles | 0.4 |
| 24901016 | Curry, homemade, vegetable, homemade sauce, with rice or noodles | 0.3 |
| 24901019 | Stir-fry, homemade, egg & vegetable, with rice or noodles | 0.3 |
| 24901024 | Stir-fry, homemade, vegetable, with rice | 0.4 |
| 24901026 | Stir-fry, homemade, vegetable & nut or legume, with rice or noodles | 0.3 |
| 24904 | Salads, vegetable based | |
| 24904016 | Salad, garden, added grains, no added dressing | 0.1 |
| 24904030 | Salad, tabouleh, commercial | 10.4 |
| 24904031 | Salad, tabouleh, homemade from basic ingredients | 9.7 |
| 25 | LEGUME AND PULSE PRODUCTS AND DISHES | |
| 252 | Mature legume and pulse products and dishes | |
| 25202 | Dishes where mature legumes are the major component | |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|--|---------------------------------|
| 25202004 | Casserole, homemade, vegetable & tofu, homemade tomato based sauce, with rice or pasta | 0.3 |
| 25202005 | Curry, homemade, chick pea & vegetable, homemade sauce, with rice or noodles | 0.3 |
| 25202010 | Rissole or patty, vegetable or lentil, commercial, baked, fried, grilled or BBQ'd, no added fat | 1.9 |
| 25202011 | Rissole or patty, vegetable or lentil, commercial, baked, fried, grilled or BBQ'd, fat not further defined | 1.8 |
| 25202012 | Rissole or patty, vegetable or lentil, homemade, baked, fried, grilled or BBQ'd, no added fat | 1.9 |
| 25202013 | Rissole or patty, vegetable or lentil, homemade, baked, fried, grilled or BBQ'd, fat not further defined | 1.8 |
| 26 | SNACK FOODS | |
| 262 | Corn snacks | |
| 26201 | Corn chips | |
| 26201001 | Corn chips, cheese flavoured, salted | 30.0 |
| 26201002 | Corn chips, other flavours, salted | 30.0 |
| 26201003 | Corn chips, plain toasted, no added salt | 30.0 |
| 26201004 | Corn chips, plain toasted, salted | 30.0 |
| 26201006 | Corn chips, not further defined | 30.0 |
| 26202 | Popcorn | |
| 26202001 | Popcorn, air-popped, no added fat or salt | 100.0 |
| 26202002 | Popcorn, commercial, butter flavoured, salted | 78.0 |
| 26202003 | Popcorn, microwaved, butter flavoured, salted | 78.0 |
| 26202004 | Popcorn, regular, unflavoured, salted, vegetable oil | 72.0 |
| 26202005 | Popcorn, regular, unflavoured, unsalted, vegetable oil | 73.0 |
| 26202006 | Popcorn, commercial, sugar coating | 33.0 |
| 263 | Extruded or reformed snacks | |
| 26301 | Extruded snacks | |
| 26301004 | Grain waves wheat snack, plain, original | 66.0 |

| Food group code/ identification^a | Food group name | Whole grain (g) per 100g |
|--|---|---------------------------------|
| 26301005 | Grain waves wheat snack, cheese or sour cream & chives | 61.0 |
| 26301006 | Grain waves wheat snack, other flavours | 62.0 |
| 264 | Other snacks | |
| 26401 | Other snacks | |
| 26401001 | Cracker, with cheddar cheese | 3.4 |
| 26401002 | Cracker, with cheese not further defined | 3.6 |
| 26401016 | Snack pack, savoury, wholemeal wheat flour biscuit with processed cheese spread | 13.0 |
| 28 | CONFECTIONERY AND CEREAL/NUT/FRUIT/SEED BARS | |
| 282 | Fruit, nut and seed-bars | |
| 28202 | Nut and seed based confectionery | |
| 28202002 | Bar, muesli or snack, with caramel & sesame seeds | 6.0 |
| 283 | Muesli or cereal style bars | |
| 28301 | Muesli and cereal style bars, no fruit | |
| 28301003 | Bar, muesli or snack, made from breakfast cereal, with chocolate coating, added vitamins B1, B2, B3, B6 & folate, Ca, Fe & Zn | 8.0 |
| 28302 | Muesli and cereal style bars, with fruit and/or nuts | |
| 28302001 | Bar, muesli or snack, plain or with 10% dried fruit | 46.3 |
| 28302002 | Bar, muesli or snack, plain or with 10% dried fruit, added vitamins B1, B2, B3, folate & Fe | 46.3 |
| 28302003 | Bar, muesli or snack, plain or with 10% dried fruit, high fibre, added vitamins B1, B2, B3, B6, E, & folate, Fe & Zn | 30.0 |
| 28302004 | Bar, muesli or snack, with 10% dried fruit & 5% nuts | 44.0 |
| 28302005 | Bar, muesli or snack, with 10% dried fruit & 10% nuts | 41.7 |
| 28302006 | Bar, muesli or snack, with 10% dried fruit & 45% nuts, chocolate-coated | 12.2 |
| 28302007 | Bar, muesli or snack, with 10% dried fruit & 60% nuts | 15.3 |
| 28302008 | Bar, muesli or snack, with 10% dried fruit & 60% nuts, yoghurt-coated | 12.5 |
| 28302009 | Bar, muesli or snack, with 15% dried fruit & 25% nuts, added vitamins B1, B2, B3, C & folate, Fe, & Zn | 2.5 |

| Food group code/ identification ^a | Food group name | Whole grain (g) per 100g |
|--|---|--------------------------|
| 28302010 | Bar, muesli or snack, with 20% dried fruit & 5% nuts | 58.9 |
| 28302011 | Bar, muesli or snack, with 20% dried fruit & 20% nuts, chocolate base | 20.9 |
| 28302012 | Bar, muesli or snack, with 30% dried fruit & 30% nuts | 23.2 |
| 28302013 | Bar, muesli or snack, with 10% nuts | 48.3 |
| 28302014 | Bar, muesli or snack, with 10% nuts, added flaxseeds | 40.0 |
| 28302017 | Bar, muesli or snack, gluten free, with 20% dried fruit & 20% seeds | 20.0 |
| 28302018 | Bar, muesli or snack, made from breakfast cereal with dried fruit | 9.6 |
| 28302019 | Bar, muesli or snack, made from breakfast cereal with nuts | 5.0 |
| 28302020 | Bar, muesli or snack, made from breakfast cereal, with chocolate & nuts, added vitamins B1, B2, B3, C & folate, Fe & Zn | 5.0 |
| 28302021 | Bar, muesli or snack, not further defined | 34.3 |
| 28303 | Muesli and cereal style bars, added coatings or confectionery | |
| 28303001 | Bar, muesli or snack, plain or with 10% dried fruit, chocolate-coated | 19.0 |
| 28303002 | Bar, muesli or snack, plain or with 10% dried fruit, yoghurt-coated | 32.8 |
| 28303003 | Bar, muesli or snack, plain or with 10% dried fruit, yoghurt-coated, added vitamins B1, B2, B3, folate & Fe | 19.0 |
| 28303004 | Bar, muesli or snack, with 15% dried fruit & 15% nuts, yoghurt-coated | 27.9 |
| 28303005 | Bar, muesli or snack, with 30% dried fruit, yoghurt-coated, added vitamins B1, B2, B3, folate & Fe | 16.0 |
| 28303006 | Bar, muesli or snack, with 10% nuts, chocolate-coated | 38.6 |
| 28303007 | Bar, muesli or snack, with chocolate chips or coating | 40.2 |

^a Food group code/ identification derived from the AUSNUT 2011-13 Food Nutrient Database,³¹ where two-digit codes indicate major food group, three-digit codes indicate sub-major food group, five-digit codes indicate minor food group, and eight-digit codes indicate food identification code.