

# GRAINS

## WHAT DO KIWIS THINK, AND HOW DO THEY ENJOY THEM?

For good reason, grain and grain foods are dietary staples in cultures around the world. They are high in carbohydrate, low in fat, provide protein and varying amounts of fibre, vitamins and minerals. With all this goodness, they are not surprisingly associated with a reduction in risk of total mortality, cardiovascular disease, diabetes, stroke and some cancers. Their benefits are similar to those seen with eating the recommended serves of fruit and vegetables<sup>1</sup>.

New Zealand's dietary guidelines rightly recognise the important nutrients provided by grain foods and recommend at least six servings a day. Grain foods provide the highest contribution of fibre, carbohydrates, iron, selenium, thiamin, folate and iodine to the New Zealand diet<sup>2-4</sup>.

This summary looks at the consumption of grain-based foods in New Zealand (in 2014), with emphasis on food categories and quantities<sup>5</sup>. It also explores attitudes towards and awareness of grain foods and dietary recommendations; wholegrain and fibre recommendations; barriers to consumption, and influencers of food choices.

### Methods in brief:

Qualifying respondents were asked to complete a food diary based on estimated intake over two days. Those with children aged 2-14 years were also asked to complete a food diary for up to two children living in their household. The sample included 706 New Zealanders aged 2-70 years across all regions. Once completed, respondents aged 15-70 were sent an online survey to detail their consumer behaviour. The data was post stratified by age, gender and location based on the 2013 Statistics New Zealand census data to ensure the results were representative of the New Zealand population.



## GRAIN FOOD CLASSIFICATIONS (BASED ON THE 2012 NZ FOOD AND NUTRITION GUIDELINES<sup>6</sup>)

- **CORE GRAIN FOODS:** Grain foods recommended as part of the grain (cereal) food group, include:

- **Refined Core Grain Foods:** E.g. White bread and bread products, crispbreads, white rice and pasta.



- **Whole Grain Foods:** Foods containing whole grain ingredients, which are recommended as part of the grain (cereal) food group. This excludes Non-Core Whole Grain foods.



E.g. Wholegrain/wholemeal varieties of bread, bread products and crispbreads, wholegrain pasta, breakfast cereals, popcorn, and brown rice.

- **NON-CORE GRAIN FOODS:** Foods containing grains as a major ingredient, which are identified as discretionary foods or are not identified as core foods.

**Other bread products** (pikelets/ pancakes)

**Bars** (muesli bars and other)



**Cakes/ pastries/ biscuits**

**Crackers/ rice cakes/ snacks** (also includes flavoured popcorn, chips and breakfast biscuits)

**Ready to eat takeaway meals or mixed meals**

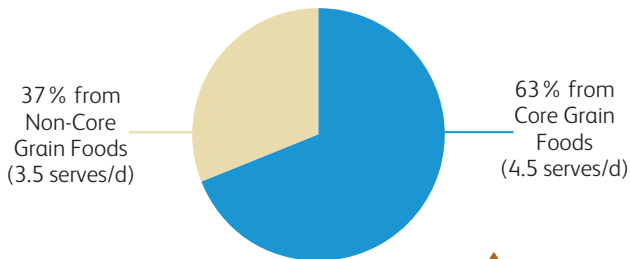
(e.g. Hamburgers, pies, tacos, pizza)



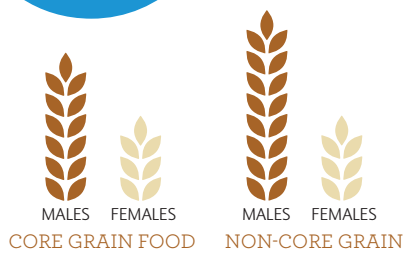
# CONSUMPTION PATTERNS: FOOD CATEGORIES AND QUANTITIES

## TOTAL GRAIN FOODS CONSUMPTION

- 95% percent of New Zealanders eat Grain Foods:



- Male adults eat twice the volume of Core Grain Foods, and 2.5 times more Non-Core Grain Foods compared to female adults

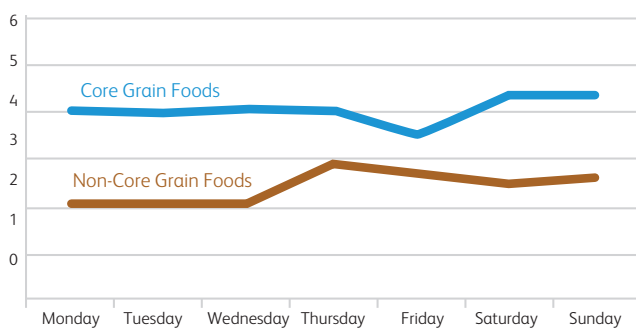


- The most commonly eaten Core Grain Foods are:
  - Bread / rolls (79%)
  - Breakfast cereals (63%)

- The most commonly eaten Non-Core Grain Foods are:
  - Cakes, biscuits & pastries (49%)
  - Ready-to-eat take away meals/mixed meals (34%)

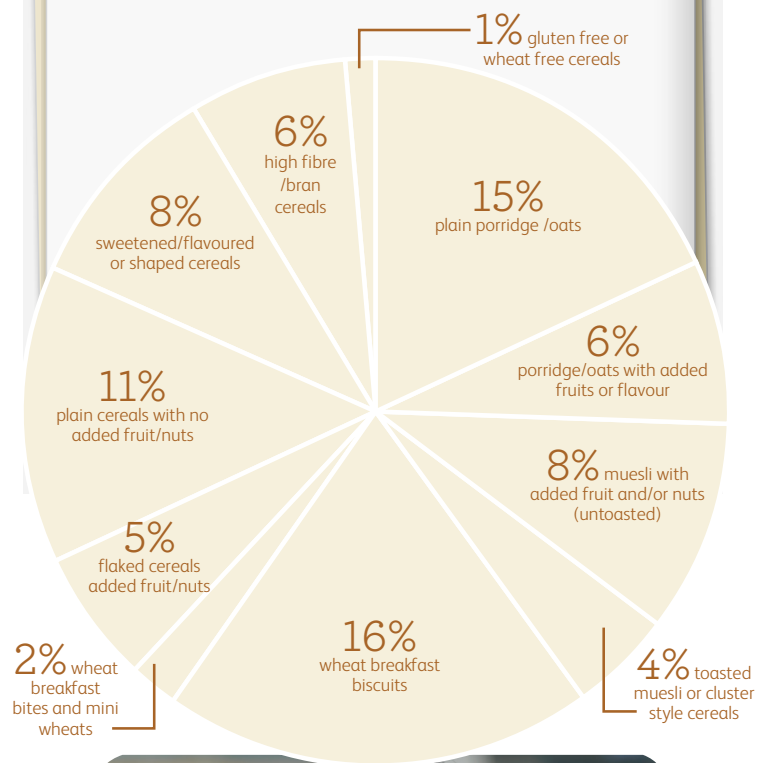
- Interestingly, more serves of Core Grain Foods are eaten on the weekend, whereas Non-Core Grain Foods were enjoyed most often at the end of the working week (Thursday and Friday).

## AVERAGE DAILY SERVES PER PERSON OF CORE GRAIN FOODS & NON-CORE GRAIN FOODS

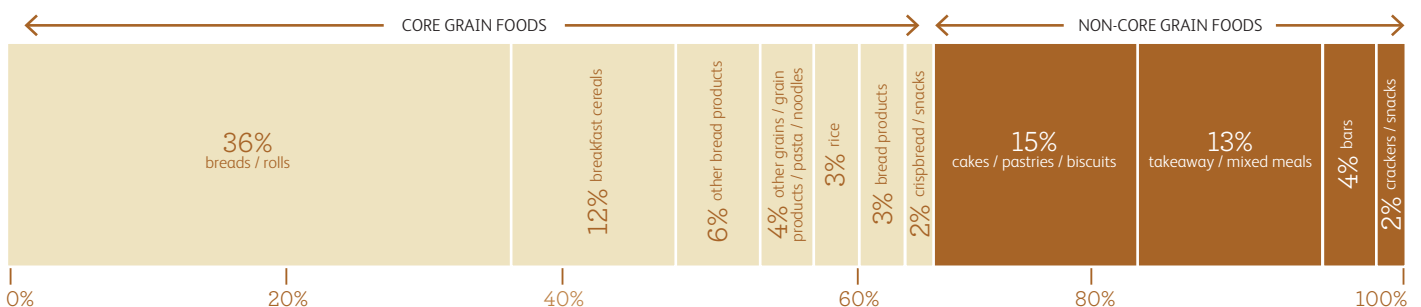


## In focus: BREAKFAST CEREALS

- 63% of New Zealanders eat breakfast cereals (1.5 serves/d)
- Unsurprisingly, most eat breakfast cereals in the morning (93% at breakfast, 5% at morning tea) with a higher occurrence mid-week (Wednesday/ Thursday).
- The most commonly eaten breakfast cereals are:



## CATEGORY CONSUMPTION SHARE BASED ON AVERAGE DAILY SERVES PER PERSON

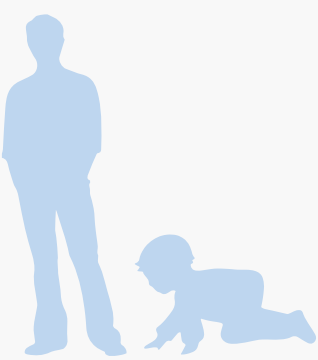






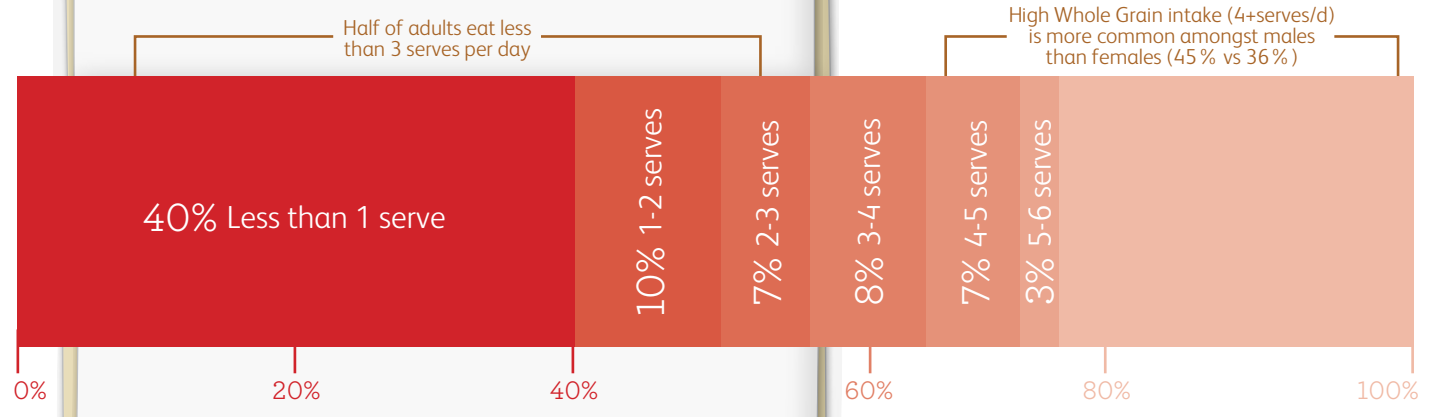
MOST COMMON SOURCE OF WHOLE GRAINS IS  
**bread**  
**37%**

*In focus:*  
**WHOLE GRAINS**



- **83% of New Zealanders eat Whole Grain Foods**
- Over half of pre-schoolers (2-4 years) and teenagers (13-17 years) eat less than 1 serve of Whole Grain/d.

**WHOLE GRAIN SERVES IN INCREMENTS**

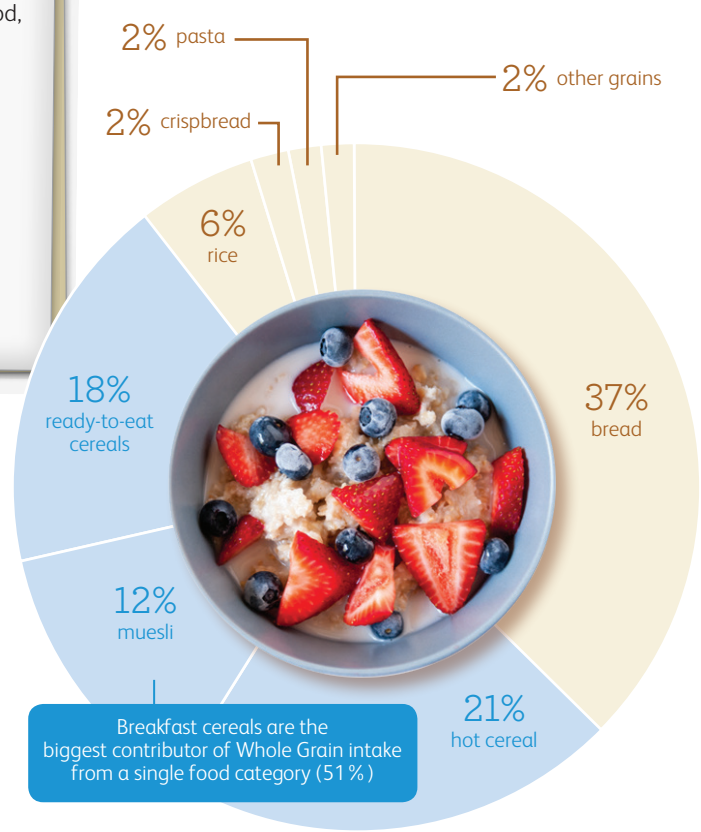


Half of adults eat less than 3 serves per day

High Whole Grain intake (4+ serves/d) is more common amongst males than females (45% vs 36%)

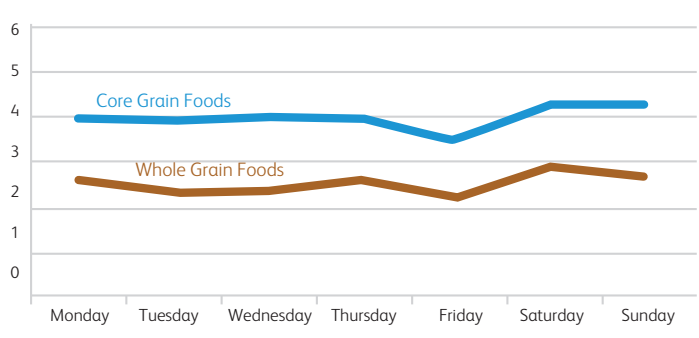
- Female children and young people eat more servings/ d of Whole Grains than their male counterparts. However in adulthood, men eat 2.6 times more serves/ d than women.
- The most common sources of Whole Grains are:
  - Bread ( 37% )
  - Hot Cereal ( 21% )
  - Ready To Eat Cereal ( 18% )
- As with Core Grain Foods, Whole Grains are more commonly eaten in the weekend, with the lowest intake on Fridays

**SOURCES OF WHOLE GRAIN**



Breakfast cereals are the biggest contributor of Whole Grain intake from a single food category (51%)

**AVERAGE DAILY SERVES PER PERSON OF CORE GRAIN FOODS & WHOLE GRAIN FOODS**



# CONSUMER ATTITUDES AND AWARENESS

## PERCEPTIONS OF GUIDELINES

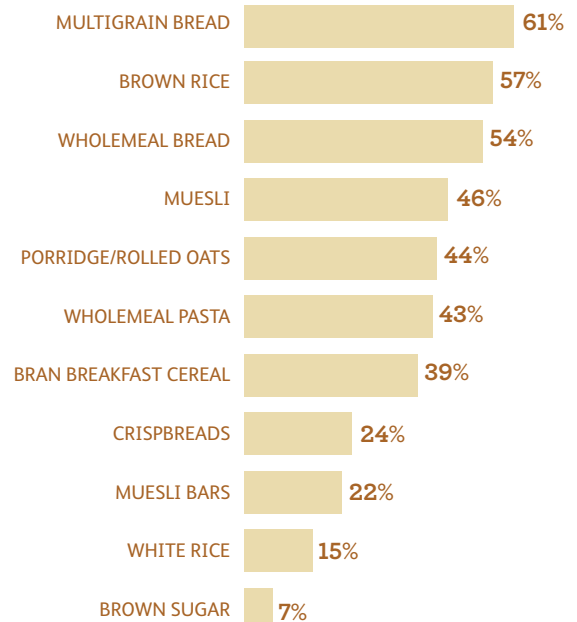
- The Ministry of Health recommends **6 serves** of core grain foods per day, preferably Whole Grain.
  - The Grains and Legumes Nutrition Council recommends people enjoy grain foods **3-4 times** a day, choosing at least half as whole grain or high fibre. This is because people often eat more than one serve in a meal.
- **Serves per day:** Just over half of all males consider 6 servings of grain foods per day to be 'about right', but the majority of females think this is too many.
  - **Eating occasions:** 67% of New Zealanders agree with the recommendation that New Zealanders enjoy grain foods 3-4 times each day, choosing at least half as wholegrain or high fibre foods. Twenty-eight percent think this is too many occasions.



## AWARENESS OF WHOLE GRAIN

- More New Zealanders are able to identify multigrain bread and brown rice as Whole Grain foods. Less identify breakfast cereals as a source of Whole Grain.

## % NEW ZEALANDERS WHO INDICATE EACH FOOD AS WHOLE GRAIN



## BARRIERS TO GRAINS INTAKE

- Females are significantly more likely to avoid grain foods than males (17% vs 8%)
- 'Weight Loss', 'To Follow a Healthy Diet' and 'avoidance of bloating' are listed as the top reasons for avoiding grains
- **Barriers to grains intake in children:**
  - Concerns about preservatives/ additives
  - Do not think grains are an important part of a healthy diet
  - Limiting to assist with weight loss

## LABELLING AND PURCHASING DECISIONS

- Over half of New Zealanders say they would be more likely to buy a product with the claim 'Very High Whole Grain'. This is seen more strongly in females than males (61% vs 46%).

## Where to from here?

Grains remain an important dietary staple. However as New Zealanders continue to eat a high intake of Non-Core Grain foods, many risk a less than optimal intake of Core Grain foods and Whole Grains. The highest risk appears to be in female adults who are less likely to meet Core Grain food guidelines, as well as pre-schoolers and teenagers who are most at risk for inadequate Whole Grain intake, compared to the rest of the New Zealand population. Targeted intervention within these groups to raise awareness on current guidelines, improve knowledge on the health benefits and reduce misconceptions, may reduce barriers to optimal intake.



For any questions or to access the full report please contact [anne-marie.mackintosh@au.nestle.com](mailto:anne-marie.mackintosh@au.nestle.com)

## REFERENCES

1. Grains and Legumes Nutrition Council. (2015). Grains and Health. Accessed 6 June 2015, from <http://www.glnc.org.au/grains-2/grains-and-health>. 2. University of Otago and Ministry of Health. (2011). A Focus on Nutrition: Key findings of the 2008/09 New Zealand Adult Nutrition Survey. Wellington: Ministry of Health. 3. Biosecurity Science, Food Science and Risk Assessment Directorate. (2014). Update report on the dietary iodine intake of New Zealand Children following fortification of bread with Iodine. Wellington: Ministry of Health. 4. Ministry of Health. (2003). NZ Food NZ Children: Key results of the 2002 National Children's Survey. Wellington: Ministry of Health. 5. Grains & Legumes Nutrition Council. (2014). New Zealand Consumption and Attitudinal Survey. Unpublished. 6. Ministry of Health. (2012). Food and Nutrition Guidelines for Healthy Children and Young People (Aged 2-18 Years) A background paper. Partial revision February 2015. Wellington: Ministry of Health.