Breads in the current Australian market: sodium and fibre content report

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Bread is an almost universal fast moving consumer good (FMCG) required by consumers on a daily basis. In Australia, bread is big business, with grocery (supermarket) chains accounting for approximately two thirds (62%) of the total market share for the volume of bread sold, and the remaining 38% being a combination of other independent bread stores and bakery chains (Roy Morgan 2009). The grocery sector is primarily comprised of in-house Private Label (PL) brands (including in-store bakeries), and brands under the two key manufacturers, Goodman Fielder (GF) and George Weston Foods (GWF) (Figure 1). Outside of this, the bakery chain, Bakers Delight (BD), holds the greatest market share (14%, Figure 1) (Roy Morgan 2009).

In the grocery sector, bread loaves contribute to the majority of bread sold (57%), followed by rolls (20%) and then 'other' varieties, such as sweet breads, muffins and other bakery snacks (Retail World 2009). Over the Moving Annual Total (MAT) to Aug/Sept/Oct 2009, 397.9 million units (loaves) of bread were sold in Australia in the grocery sector (Retail World 2009). The bread loaf category in the grocery sector is dominated by a combination of PL brands (44% of sales) and the brands under GF and GWF. These latter two, together, contribute to more than 50% of sales in this sector (Figure 2) (Retail World 2009).

Key nutrient contributions from bread: sodium and fibre

Given the volume and variety of bread loaves sold and consumed in Australia, it is important to consider their nutrient contribution, specifically sodium and fibre, to the food supply, and which brands dominate in these contributions. This report covers the nutritional profile of bread loaves from the following three areas: (a) BD (as a major representative of bakery chains), (b) the top ten selling manufacturer brands (by volume sales, Retail World 2009), in the grocery sector and (c) all PL brands for which data was available at the time of collection. White, wholemeal and seeded (grain) loaves are included, with a minor contribution from 'other' loaf varieties (eg rye, sourdough), depending on the brand.

In the grocery sector for bread loaves, on average, manufacturer brands and PL brands contained similar amounts of sodium per 100 g (434 mg, and 432 mg, respectively, Table 1). BD varieties, however, contained significantly more (~ 20%) sodium per 100 g (mean 525 mg) than both of these ($P < 0.001$ for both). Manufacturer brands, on average, contained 5.5 g per 100 g of fibre, which was significantly greater (~ 22%) than PL brands (4.5 g per 100 g, $P = 0.006$), but not BD (5.0 g per 100 g) (Table 1). However it should be noted that two of the PL brands with fibre data contained white varieties only.

Within PL brands, *Cornett's* IGA and IGA *Black & Gold* both contained more than 500 mg per 100 g sodium (Table 1). This was followed closely by Coles Group *Coles Smart Buy* (which also had the lowest fibre content, and contained only white bread loaves), and Woolworths *Homebrand.* Franklins *No Frills* contained lower amounts of sodium than the aforementioned varieties, but it was also lower in fibre (3.0 g per 100 g, Table 1) and contained only white bread loaves. Woolworths (other), Coles Group *You'll Love Coles* and IGA (other) had the highest fibre contents of the PL brands, and even lower sodium contents (Table 1), and contained a variety of white, wholemeal and grain bread loaves. Aldi contained less than 400 mg per 100 g sodium, which was lower than all other PL brands, but provided a lower source of fibre than many other varieties.

Within manufacturer brands, GWF *Noble Rise* was the only variety (within the top ten) that had a mean sodium content of more than 500 mg per 100 g; (Table 1). GF *Country Split* and GF *Molenberg* featured as having the second and third highest sodium contents, respectively, followed by GWF *Tip Top Sunblest* and GWF *Tip Top Up*, the latter two both having a slightly lower fibre content than many of the other manufacturer brands. GF *Helga's* and GF *Lawson's Traditional* both had mean fibre contents around 6 g per 100 g but sodium levels above 400 mg per 100 g. GF *Wonder White* and GWF *Bürgen* had mean sodium contents of 403 mg and 386 mg per 100 g, respectively, and provided the highest contribution of fibre, on average (6.3 g and 6.5 g per 100 g, respectively). GF *Mighty Soft* had a lower fibre content than the aforementioned varieties, but was the lowest in sodium (374 mg per 100 g).

Interpretation: sodium

Sodium intakes in Australia are currently around 3200 mg/person/day (equivalent to 8 g salt) (Webster & others 2010), which is considerably higher than the recommended intake of 2400 mg/person/day (equivalent to 6 g salt) (NHMRC 2006). A habitually high intake of sodium has been linked to a higher than average blood pressure, which may lead to an increased risk of experiencing heart disease or a stroke (NHFA 2006a).

In accordance with our position statement (NHFA 2006a), the Heart Foundation recommends that all sectors of the food industry (retailers, manufacturers, trade associations, caterers, public procurement and suppliers to the catering industry) should be engaged in

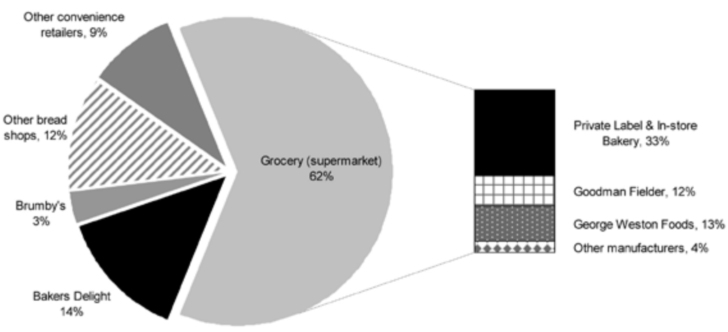

Figure 1. Distribution of total volume sales (%) across the bread market in Australia (adapted from Retail World 2009 and Roy Morgan 2009)

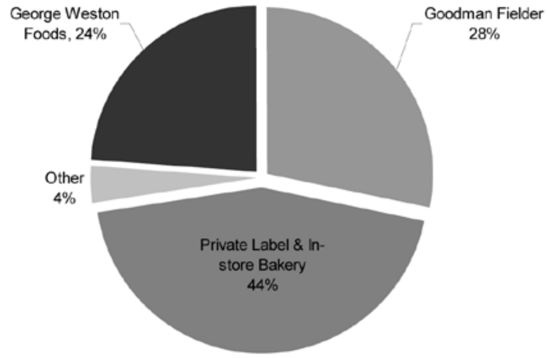

Figure 2. Distribution of total volume sales (%) across the bread loaf market in the Australian grocery (supermarket) sector (adapted from Retail World 2009)

Table 1. Mean sodium and fibre content (per 100 g) of loaves of major bread brands (including private label) in the Australian grocery and the bakery chain sectors.

Manufacturer brands	Segment	n[i]	Sodium (mg per 100 g)	Fibre (g per 100 g)
GWF[e] Noble Rise	White, wholemeal, grain	4	506 ± 76	5.8 ± 2.0
GF[e] Country Split	White, wholemeal, grain	2	473 ± 11	N/A[h]
GF Molenberg	Grain	5	463 ± 39	5.7 ± 1.1
GWF Tip Top Sunblest	White, wholemeal, grain	10	450 ± 0	4.4 ± 1.3
GWF Tip Top Up	White, wholemeal, grain	9	447 ± 5	4.9 ± 1.4
GF Helga's	White, wholemeal, grain, other[f]	13	441 ± 55	6.3 ± 3.5
GF Lawson's Traditional	White, wholemeal, grain	4	421 ± 21	5.9 ± 2.6
GF Wonder White	White, wholemeal	4	403 ± 29	6.3 ± 0.4
GWF Bürgen	Wholemeal, grain, other	8	386 ± 25	6.5 ± 2.3
GF Mighty Soft	White, wholemeal, grain	5	374 ± 117	4.2 ± 1.3
Mean[g]		**64**	**434 ± 56[(a)]**	**5.5 ± 2.2[(c)]**
Private Label brands	**Segment**	**n**	**Sodium (mg per 100 g)**	**Fibre (g per 100 g)**
Cornett's IGA	White	1	523 ± 0	N/A[h]
IGA Black & Gold	White	2	522 ± 2	N/A[h]
Coles Group Ltd Coles Smart Buy	White	3	498 ± 41	2.9 ± 0.1
Woolworths Ltd Homebrand	White, wholemeal, grain	6	489 ± 28	4.4 ± 1.3
Franklins No Frills	White	2	450 ± 0	3.0 ± 0.0
Woolworths Ltd (other)	White, wholemeal, grain	10	434 ± 86	4.6 ± 1.6
Coles Group Ltd You'll Love Coles	White, wholemeal, grain	8	420 ± 97	5.5 ± 1.4
IGA (other)	White, wholemeal, grain, other	19	415 ± 89	4.8 ± 1.4
Aldi*	White, wholemeal, grain, other	8	383 ± 106	3.7 ± 1.0
Mean		**58**	**432 ± 88[(a)]**	**4.5 ± 1.4[(d)]**
Bakery-chain Brand	**Segment**	**n**	**Sodium (mg per 100 g)**	**Fibre (g per 100 g)**
Bakers Delight	White, wholemeal, grain, other	**66**	**525 ± 72[(b)]**	**5.0 ± 2.1**

[e] GWF: George Weston Foods, GF: Goodman Fielder
[f] 'Other' includes minor varieties such as rye, sourdough
[g] Mean ± SD. Independent-samples T-test, significant if $P \leq 0.05$. (a) significantly different to (b), (c) significantly to (d)
[h] Cornett's IGA, IGA Black & Gold, and GF Country Split did not have fibre data available
[i] n is the number of varieties of loaf bread in each brand included in the NIP survey

* Sales data unavailable for Aldi and therefore not included in the PL market share for Figures 1 and 2

a salt reduction program to decrease the sodium content of foods within their product range as well as increasing the proportion of healthier choices. We also encourage industry to develop or reformulate foods that are lower in sodium, through gradual reduction in order to adjust to food safety, consumer acceptance and palatability (NHFA 2006a).

In 2009, bread (including bread rolls) alone was estimated to contribute to around a quarter of the overall intake of sodium from processed foods in the Australian diet (FSANZ 2009). Given the large volume share of PL and manufacturer brands (GWF and GF) of bread sales in the grocery sector, and of BD in the bakery chain sector, reformulation should focus on significantly improving the sodium profile across all these areas.

There are a number of baked products from this survey that demonstrate the ability to produce a bread loaf with ~ 400 mg per 100 g of sodium suggesting that some of the individual brands outlined in Table 1 could reduce sodium levels by up to 20%.

The Heart Foundation encourages bread manufacturers, retailers and bakery chains to lower the sodium content of bread to 400 mg per 100 g or less.

Interpretation: fibre

Dietary fibre from cereal grains (including wholegrains) is associated with a lowered risk of coronary heart disease (NHFA 2006b). Bread is a key source of dietary fibre, with an estimated 45% coming from breads and other cereal foods (ABS 1999). Currently, consumers buy more white bread than any other type, with it holding a 43% value share of all mainstream (white, wholemeal and grain square loaves) bread sales (Retail World 2010). Given the major presence of white bread in this category, the Heart Foundation recommends that Australian food industries develop or reformulate products to have a greater proportion of wholegrains or are higher in dietary fibre (NHFA 2006b). We also recommend that the industry promote the sale of suitable wholegrain and/or higher fibre bread varieties, such as GWF *Bürgen* or GF *Wonder White*, in preference to promotion of regular (ie not fibre-enriched) white bread.

The Heart Foundation encourages bread manufacturers, retailers and bakery chains to increase the fibre content of bread to more than 4.5 g per 100 g by increasing the content of wholegrain, wholemeal flour, resistant starch (eg *Hi-Maize*), and/or seeds.

The Heart Foundation also acknowledges the voluntary participation and commitment that the food industry is making as part of the Food and Health Dialogue. The Dialogue involves government bodies, public health groups (including the Heart Foundation), and food industry, working collaboratively across all levels of the food supply chain to improve the dietary intake of Australians by focusing on raising the nutritional profile of foods such as bread through reformulation, consumer education and portion standardisation.

Data sources

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- Roy Morgan. 2009. Bakers Delight sales data was available from Roy Morgan Single Source Data (2009), at *www.bakersdelight.com.au* (accessed September 2009).
- Bakers Delight nutritional information was provided by Belinda Slater, Bakers Delight (personal communication for data provision and permission to adapt for use).
- Data for Brumby's Bakeries was not collected because of its low market share, relative to Bakers Delight.
- Nutritional information for all other products was collected from the Nutrition Information Panels (NIP) on the packaging of products available in national supermarket chains, by The Nielsen Company (Copyright © 2009), on behalf of the National Heart Foundation of Australia (NHFA). The NHFA calculations are based, in part, on data collected by Nielsen for the breads category, as defined by the NHFA, during the requested time period (2008) within the Australian total grocery market. Note that the average for each brand was determined across all bread loaf varieties available for that brand.
- Data was correct at the time of collection. Manufacturers may have reformulated since then.

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