The Business opportunities and challenges of a multiple brand salt reduction
Plan of Talk

• Reason for Doing
• Premier Foods’ Salt Reduction Strategy
• UK Salt Targets and Achievements
• Challenges and Opportunities in Salt Reduction
• Tips and Conclusion
Salt Reduction in Foods – Reason for Doing

• The UK Scientific Advisory Committee on Nutrition (SACN) has advised that average salt intake for the UK population should be reduced from the current 8.1g/day to 6g/day.

• Eating too much salt can have a serious impact on our health:
  • Causing high blood pressure, which can lead to heart disease and stroke;
  • Also linked to kidney disease/stones, stomach cancer and osteoporosis.

• Significant proportion of salt in the diet is estimated to be obtained from processed foods.

• For this reason the Department of Health has committed to continuing the salt reduction programme - currently through the Responsibility Deal which outlines the key health commitments made by the food industry and sets targets by sector for the food industry.
Public Health Initiative Reducing Salt - Timelines

1994: A COMA report ‘Nutritional Aspects of Cardiovascular Disease’ relationship between salt intake and blood pressure ADVICE salt intake reduced to 6g/day

2002: FSA commits to nationwide salt reduction initiative

2003: SACN report on salt & health evidence for association between salt and blood pressure stronger than the COMA report 1994

2006: FSA voluntary Salt reduction targets for the food industry for 85 food categories

2008: Population average salt intake reduced: 9.5g to 8.6g/day

2010: FSA publishes catering commitments to salt reduction - shift to out of home sector

2011: Salt reduction through public Health Responsibility Deal’ Salt Pledge FSA revised salt target 2012. (80 categories)

2012: Population average salt intake reduced: 8.6g to 8.1g/day

2012: FSA publishes catering commitments to salt reduction - shift to out of home sector

2012: 3 x catering pledges training, reformulation procurement

2014: DH new salt targets for food industry in 76 categories

 Targets for the out of home max. per Serving

2017: 6 g salt per day
Reducing salt has become a key part in the development of all our NPD, without compromising the quality, safety or taste.

Salt reduction continues to be a priority for Department of Health Responsibility Deal (RD) Food Network Pledges.

Our long established salt-reduction programme:

‘Not only meeting salt targets’ but also continuing to develop ‘low in salt’ options.
Salt found in most Foods; The contribution of food categories to dietary salt intake

Source: Dietary sources of sodium – NDNS Y1-4
<table>
<thead>
<tr>
<th>Category</th>
<th>2010 Targets (salt g/100g) SWA</th>
<th>2012 Targets (salt g/100g) SWA</th>
<th>2017 Targets (salt g/100g) SWA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max</td>
<td>Max</td>
<td>Max</td>
</tr>
<tr>
<td>2.1 Bread &amp; Rolls</td>
<td>1.1</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>8.1-3 Ready Meal</td>
<td>n/a</td>
<td>n/a</td>
<td>0.9</td>
</tr>
<tr>
<td>9.1 Instant Soup</td>
<td>0.60</td>
<td>0.63</td>
<td>0.53</td>
</tr>
<tr>
<td>11. Pelleted Snacks</td>
<td>2.5</td>
<td>2.25</td>
<td>2.13</td>
</tr>
<tr>
<td>12.1 Cake</td>
<td>0.60</td>
<td>0.5</td>
<td>0.43</td>
</tr>
<tr>
<td>12.3 Fruit pies</td>
<td>0.40</td>
<td>n/a</td>
<td>0.33</td>
</tr>
<tr>
<td>15.1 Cooking Sauces</td>
<td>1.1</td>
<td>0.83</td>
<td>0.75</td>
</tr>
<tr>
<td>15.2 Thick Sauces</td>
<td>n/a</td>
<td>0.83</td>
<td>0.75</td>
</tr>
<tr>
<td>17.1 Pasta &amp; Noodles</td>
<td>n/a</td>
<td>0.5</td>
<td>0.38</td>
</tr>
<tr>
<td>18.2 Flavoured Rice</td>
<td>0.80</td>
<td>0.45</td>
<td>0.45</td>
</tr>
<tr>
<td>19.1 Other Cereals</td>
<td>0.80</td>
<td>n/a</td>
<td>0.63</td>
</tr>
<tr>
<td>20.1 Dessert mixes</td>
<td>n/a</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>20.3 Sponge Puddings</td>
<td>n/a</td>
<td>1.0</td>
<td>0.75</td>
</tr>
<tr>
<td>20.4 Processed Puds</td>
<td>n/a</td>
<td>0.3</td>
<td>0.18</td>
</tr>
<tr>
<td>26.1 instant mashed potato</td>
<td>n/a</td>
<td>0.25</td>
<td>0.18</td>
</tr>
<tr>
<td>28.1 Stock</td>
<td>n/a</td>
<td>0.25</td>
<td>0.18</td>
</tr>
<tr>
<td>28.2 Gravy</td>
<td>n/a</td>
<td>0.25</td>
<td>0.18</td>
</tr>
</tbody>
</table>

- **25% reduction** in 2010 vs 2012 for Bread & Rolls
- **29% reduction** in 2017 vs 2012 for Pelleted Snacks
- **32% reduction** in 2017 vs 2012 for Cake
- **50% reduction** in 2017 vs 2012 for Cooking Sauces
- **44% reduction** in 2017 vs 2012 for Flavoured Rice

Developed Low salt options for:
- 28.1 Stock
- 28.2 Gravy
## Opportunities and Challenges in Salt Reduction

### Opportunities

- Boost health credentials
- Claimable benefits
- Brand extension
- Targeting new consumer groups
- Selling into schools/hospitals (Catering)
- Interesting flavours
- Salt replacers with nutrition benefits
- Engagement HCPs and KPIs
- Reputation: Partnership Government
- Risk mitigation: Media exposure

**"Oh no! That’s my brand!"**

### Challenges

- Bland taste
- Flavour plays a fundamental role
- Consumer expectations/complaints
- Quality
- Shell life
- Calorie increase - sugar to reduce acidity
- More additives
- Salt reduction on best selling products
- Cost pressures oppose improvements
- NPD - Scarce resources

21-Nov-14
Industry Response to Salt Reduction and Healthy Marketing

Premier Foods

21-Nov-14
Challenges
Salt Reduction
Many ingredients will have an impact on salt content

- In reality the “salt” targets are sodium targets.

- **Ingredients that contain sodium:**
  - Salt (sodium chloride). Used to deliver taste
  - Sodium bicarbonate. Commonly known as “baking soda” - raising agent, without cake would be flat and hard.
  - Monosodium glutamate - flavour enhancer hard to replace - consumer notice!
  - Cheese powders: Reliant on supplier reformulations - impact on cheese flavour products.
  - Yeast powders: Adds an important element savoury flavour
  - Savoury flavourings. Contain sodium (Umami), although the flavouring industry continues to rise to the challenge of delivering lower sodium flavours that will be accepted by consumers.
Understanding The Taste Dimension Of Salt

The salt curve

Visualising The Taste Dimensions Of Salt

The salt curve

The Consequences Of Salt Reduction

Challenge = Restoring the taste dimension of salt

Challenge = Restoring the taste dimension of salt

Source: Givaudan Taste of Wellbeing 2014
Creating successful products is not simply about substituting salt – Example Noodles & Pasta

Our noodles and pasta have minimal or no salt content

Challenge = Maintaining the specific savoury flavour impact whilst reducing salt.

To keep a balanced flavour many ingredients had to be changed to lower salt version – A search for new innovative ingredients like Seaweed to maintain the savoury flavour

Our core consumers notice changes - so any reduction in sodium (salt) must be completed without effecting overall flavour profile of product

Replacing MSG/IMP with a natural flavour system + reduced salt
Salt enhances the taste but stealth approach possible for smaller reduction

Ambient: Utilises thermal + pH hurdles (pH<4.2) - Requires addition of acids
Designed to balance acidity through combinations of salt and sugar
Salt acting as flavour enhancer + masking acidity

Indian
Perception of spice. As salt lowered masking effect on acidity is reduced
Moreover, a reduction in masking of spice often delivers enhanced chilli heat perception, which in turn needs adjustment

Strategy in sauces: Reduce salt levels over time, focusing on maintaining product quality and consumer acceptance

Each cuisine different challenges:

Oriental
Ingredients black beans, soy sauce, fish sauce - high salt levels (as salt used in fermentation and preservation)
Reducing these impact on colour, flavour, natural glutamate and umami attributes.

Italian
Salt removed = more acid perception which in turn unbalance the combination of tomato, herbs & pepper.

21-Nov-14
Approval Process for Salt Reduced Products

1. NPD technologists + suppliers identify lower sodium ingredients suitable for recipes

2. Recipes evaluated by Brand & Senior NPD Team

3. Reformulated recipes evaluated by in-house sensory team + employees

4. Recipes monitored over period of their shelf life.

5. Recipes trialled extensively in factories and travel tests carried out

6. Internal sensory evaluation, researched with consumers at an independent food research centre

Salt reduction in branded products can take up to 18 months from start to launch

Consumer research results are presented to brand and senior management team for approval.

Over the past 4 years we’ve had a development technologist continuously working on salt reduction across our noodle, pasta and rice ranges
Opportunities
Salt Reduction
% Consumers Who Say They Purchased ‘Low Salt’ Last Month

IGD ShopperVista May-July 2014 – 3 month rolling data, major grocery shoppers

% consumers

2010 2011 2012 2013 2014

Year
## Purchase Influenced by Low/Reduced Salt Claims

**Low Salt/Reduced Salt, Key factor for choosing one brand/product over another?**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bread</td>
<td>12%</td>
</tr>
<tr>
<td>Baked Goods</td>
<td>13%</td>
</tr>
<tr>
<td>Cheese</td>
<td>8%</td>
</tr>
<tr>
<td>Crisp</td>
<td>17%</td>
</tr>
<tr>
<td>Cooking Sauce</td>
<td>34%</td>
</tr>
<tr>
<td>Meat &amp; Meat Products</td>
<td>29%</td>
</tr>
<tr>
<td>Table Sauces &amp; Condiments</td>
<td>17%</td>
</tr>
</tbody>
</table>
• Senior consumers will need reassurance on salt concerns before buying into category.

• As seniors are more concerned about controlling salt in their diet they under index on cooking sauce use.

• Around a third of younger consumers looking for ‘low salt’ options.

Example: In cooking sauces salt concerns highest for over 45’s, but still a third of the younger consumers.
Seniors and Young Families key population drivers

- Over 65’s are the UK’s fastest growing demographic

- Seniors look for low salt claims on cooking sauces

- Added health innovations should look to build on low salt as a senior friendly propositions

UK demographic change increases importance of seniors and younger families

Trends in population growth, UK, 2011-16, by age group

Source: Office for National Statistics/GAD Mintel
NDNS Year 1 to 4 sodium intake (24 hr urinary analysis)

Average salt intake per day:
- 4 to 6 years: Average 3.7 g/day
- 7 to 10 years: Average 5.1 g/day
- 11 to 18 years: Average 6.7 g/day
- 19 to 64 years*: Average 8.1 g/day
- 65 years and over: Average 7.2 g/day

Maximum recommended salt intake per day:
- 4 to 6 years: 6 g/day
- 7 to 10 years: 6 g/day
- 11 to 18 years: 6 g/day
- 19 to 64 years*: 8 g/day
- 65 years and over: 8 g/day

More than one in five UK consumers look for reduced salt products

A similar number of consumers agree in Germany (20%) and Spain (24%). However demand is highest in France with almost a third of consumers (32%) wanting more reduced salt gravies.

Source: Mintel Oxygen
Base: 1,500 internet users aged 16+
Seniors and Young Families key population drivers

UK demographic change increases importance of seniors and younger families

- In the UK over 55’s over index for stock cube use (58% vs. 44%)
- 55 – 74 year olds in particular are more likely to avoid high salt products
- As seniors have grown up with scratch cooking they over index for use of stock cubes and gravy makers

As seniors have grown up with scratch cooking they over index for use of stock cubes and gravy makers

For ‘younger families’ low salt options has shown to important in stock and gravy

Source: Mintel
Oxo Reduced Salt Cubes
Worth 4.1m* & growing at 20% YOY

Driven by 230,000 new shoppers to the reduced salt range

Compared to Standard Cubes, Oxo Reduced Salt shoppers are more likely to be...

- **Pre or Young Families (0-4 years old)**
  - 35% of spend

- **Younger - Under 45 years old**
  - 32% of spend

- **More Affluent – Social Class ABC 1**
  - 56% of spend

Source Kantar World panel 52w/e 14th September 2014 *Sales value Oxo Cubes SR / year*
Bisto Reduced Salt Gravy
Worth 8.4m* & growing at 18% YOY

Driven by existing shoppers buying more frequently & more volume per basket

Compared to Standard Gravy, Bisto Reduced Salt shoppers are more likely to be...

- Pre or Young Families (0-4 years old): 29% of spend
- Younger - Under 45 years old: 38% of spend
- More Affluent – Social Class ABC 1: 48% of spend

Source: Kantar World panel 52w/e 14th September 2014  *Sales value Bisto Gravy SR / year
Targeting kids - demand for low salt

Trends in population growth, UK, 2011-16, by age group

Source: Office for National Statistics/GAD Mintel

2 of 5 a day
Low salt
No added sugar
No additives or preservatives
Salt Reformulation Top Tips
Salt Reduction Key Criteria

It is important to remember that the reformulated food must deliver on the following key criteria:

• Food safety
• Taste, texture and stability, first requirement of any food manufacture
• Label cleanliness and/or natural perception
• Shelf life performance and stability
• Functionality of the ingredients (salt)
• Ease of manufacturing of the product
• Cost in use of the ingredient (salt) versus a replacer ingredients
## Salt Reduction Top Tips - Overcome Challenge

<table>
<thead>
<tr>
<th>Tip 1</th>
<th>Tip 2</th>
<th>Tip 3</th>
<th>Tip 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Don’t forget that salt is a natural and clean label ingredient</strong></td>
<td><strong>The stealth reduction solution</strong></td>
<td><strong>Turn salt reduction into an innovation opportunity</strong></td>
<td><strong>Technology solution may be applicable</strong></td>
</tr>
<tr>
<td>Strategy: natural and clean label ingredients?</td>
<td>Stealth / gradual reduction with no remedial action - reducing salt levels (5-10%)</td>
<td>Reducing salt where stealth approach doesn’t work (+20% - loss of taste quality). Challenge flavour supplier to introduce flavour with higher impact. In addition to change of flavour system, some natural salt replacer can enrich the product with nutrients, e.g. Seaweed</td>
<td>Reduction of salt crystal size may be effective, as well as manipulation of the product structure to enhance salt dissolution in the month.</td>
</tr>
<tr>
<td>Even plant extracts, may not be considered by consumers to acceptable if not familiar store cupboard ingredients.</td>
<td>The basis of this approach: Consumers’ palates gradually adjust to lower saltiness</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Summary Conclusions Opportunities

While low salt product launch activity still remains relative niche, growth albeit small is evident, with low salt positioned products increasing.

Seniors and young families are key population drivers – proven to look for reduced salt in savoury categories.

Engaging with UK Government Salt Reducing programme is important for health credentials of branded food products.

Same applies to Catering - as this sector has been lagging behind - now with an increased pressure to reach the lower salt levels of retail products.

### NUTRITION INFORMATION

<table>
<thead>
<tr>
<th>Typical values</th>
<th>Per 100g as sold</th>
<th>Per 100g as per make up instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>1537kJ 363kcal</td>
<td>987kJ 233kcal</td>
</tr>
<tr>
<td>Fat</td>
<td>3.0g 1.2g</td>
<td>1.9g 0.8g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>68.3g 1.3g</td>
<td>43.9g 0.8g</td>
</tr>
<tr>
<td>of which sugars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fibre</td>
<td>5.0g 3.2g</td>
<td>3.2g 0.8g</td>
</tr>
<tr>
<td>Protein</td>
<td>13.2g 8.5g</td>
<td>8.5g 0.8g</td>
</tr>
<tr>
<td>Salt</td>
<td>0.98g 0.63g*</td>
<td></td>
</tr>
</tbody>
</table>

*Based on Government salt targets 2017. (as per 100g as per make up instructions)

Source: InnovaMarket Insight & Mintel 2014
Thank You

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