Market study on date marking and other information provided on food labels and food waste prevention

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Overview

1. Study Objectives and Activities

2. Evidence review

3. Mystery shopping – scope and results

4. Issues identified and discussed with stakeholders

5. Conclusions and Recommendations
Study Objectives and Activities
Study Objectives

- Investigate **food labelling practices**, especially date marking
- Assess the **possible impacts** of these practices **on food waste**
- Support **DG SANTE's work on date marking** in relation to food waste prevention and **dialogue with supply chain actors**
Study Activities

- **Task 1: Evidence review** through desk research to:
  - Assess most wasted food products in EU 28
  - Assess links between food waste and food labelling practices
  - Define target products for mystery shopping on basis of these assessments

- **Task 2: Market research** to survey current labelling practices through mystery shopping…
  - …for a standard basket of 10 target food products
  - …at a representative sample of supermarkets, hypermarkets and discounters’ stores
  - …in 8 EU MS: Germany, Greece, Hungary, Netherlands, Poland, Slovakia, Spain, Sweden

- **Task 3: Interviewing supply chain actors** to:
  - Explore date-marking and labelling practices with
  - 37 Food business operators (FBOs)
  - 15 European organisations, mainly trade associations
  - 19 National competent authorities (NCAs)
Task 1: Evidence review – food products’ contribution to food waste
EU 28 avoidable total food waste was profiled by food product category across four supply chain stages

- The four stages are: manufacturing/processing, retail, service and household
- Profiling was undertaken through the use of a combination of:
  - FUSIONS 2016 data
  - Compositional analyses
  - Food production and consumption data

- In general, the most wasted food categories are:
  1. Fruit and vegetables
  2. Bakery products
  3. Meat (incl. poultry and fish)
  4. Dairy

- However, the food waste profile varies…
  - …by supply chain stage
  - …between Member States
EU 28 avoidable total food waste was profiled by food product category across four supply chain stages

EU28 avoidable food waste (Mt/ year)

<table>
<thead>
<tr>
<th>Food Category</th>
<th>Avoidable (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh fruit and vegetables</td>
<td>28%</td>
</tr>
<tr>
<td>Meat</td>
<td>12%</td>
</tr>
<tr>
<td>Bakery</td>
<td>19%</td>
</tr>
<tr>
<td>Meat</td>
<td>10%</td>
</tr>
<tr>
<td>Dairy</td>
<td>10%</td>
</tr>
<tr>
<td>Juices and other drinks</td>
<td>8%</td>
</tr>
<tr>
<td>Pre-prepared</td>
<td>7%</td>
</tr>
<tr>
<td>Ambient products</td>
<td>4%</td>
</tr>
<tr>
<td>Alcoholic drinks</td>
<td>3%</td>
</tr>
<tr>
<td>Confectionery / sugar</td>
<td>2%</td>
</tr>
</tbody>
</table>

The maximum amount of food waste **attributable to date-marking issues** was estimated for the EU-28 at 88 million tonnes per year.

<table>
<thead>
<tr>
<th>Food waste attributable to sector</th>
<th>As % sectoral food waste</th>
<th>Total (Mt/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacture (Minimum Life on Receipt linked to depot returns)</td>
<td>5%</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Retail (linked to ‘date expiry’ in stores)</td>
<td>55%</td>
<td>2.5</td>
</tr>
<tr>
<td>Household (consumers citing date labels in their discard decisions)</td>
<td>9.5% to 12%</td>
<td>4.4 to 5.5</td>
</tr>
</tbody>
</table>

Source: ICF, based on WRAP

Product types for which consumer decision to discard most influenced by date marks are:

- Fresh/ processed meat
- Fish
- Poultry
- Liquid dairy
- Fresh fruit juice
Task 2: Mystery shopping – scope and results
Mystery shopping – 10 target product types, all pre-packed

- **Salad**
  - cut lettuce/ salad leaves

- **Bread**
  - white, medium-sliced

- **Fish (chilled)**
  - smoked salmon

- **Ham (chilled)**
  - prosciutto/ serrano

- **Milk (fresh)**
  - Cows’, semi-skimmed (low-fat)

- **Yoghurts**
  - Multipack, strawberry

- **Cheese (hard, sliced)**
  - Cheddar/ Gouda/ Emmental

- **Juice (fresh)**
  - Orange, no pulp

- **Pasta (chilled)**
  - Vegetable filling

- **Ketchup (tomato)**
Split between “retailers’ own brand” products and “branded products” purchased varied according to product type

- 2,296 products purchased overall;
- 24% of these products were retailer’s own brand, 76% were branded products;
- 38% of products purchased from discounters were retailer’s own brand, 62% were branded products;
- 21% of products purchased from conventional retailers were retailer’s own brand, 62% were branded products.
Mystery shopping – extent and results

- **Stores visited**: 109 ; **Products purchased**: 2,296 ; **Brands sampled**: 1,058

- **Date marking** – almost always in line with FIC Regulation
  - 95.6% products showed date mark and either “Use By” (UB) or “Best Before” (BB) wording

- Biggest problem encountered – **Illegibility**
  - 10.8% of products display date mark and/or wording insufficiently legibly

- Other problems – unusual or rare
  - Confusing or absent date wording – 3.7% of products
  - Wrong type of date (e.g., “display until”) – 0.7% of products
  - Both UB and BB wording displayed – <0.1% of products

- **Remaining life** of products
  - Varied widely within each product type, but…
  - Average remaining life of BB products and UB products – **very similar**
Average remaining life on date of purchase for yoghurts with a BB date mark is very similar to that for yoghurts with a UB date mark.
The use of “Best Before” and “Use By” date marks varied between product types and Member States

- Except for sauce, type of date mark (UB/BB) applied to food products varies by product type
- “Use By” date marks were used most frequently in Greece, Hungary, Poland, Slovakia, Spain
- “Use By” date marks were used least frequently in Germany, Netherlands, and Sweden
“Use By” date marks are best understood in the Member States in which our market research found that they are most frequently used.

Source re % understanding “UB”: Eurobarometer 425, 2015; Source re % product “UB”: ICF, 2017
Similarly, “Best Before” date marks are best understood in the MS in which our market research found that they are most frequently used.

Source re % understanding “BB”: Eurobarometer 425, 2015; Source re % product “BB”: ICF, 2017
Storage advice and open life instructions

- Chilled products displayed:
  - Either a maximum temperature that the product should be stored at
    - this was linked to an expiry date in Germany, Netherlands and Sweden
  - Or a temperature range within which the product should be stored

- Ambient products were less likely to display precise storage advice, such as storage temperatures

- Open life instructions
  - Fresh juice, fish, milk, pre-prepared chilled pasta are most likely to state no. of days
  - Instructions vary significantly between Member States and are not linked to date mark type (i.e., “Use By” or “Best Before”)
  - The open life advice “eat immediately” was displayed on 4% of products sampled
Task 3: Issues identified and discussed with stakeholders
A number of issues were identified prior to or during interviews with food supply chain stakeholders

1. **“Use By”** date marks may be being **applied unnecessarily** because:
   - FBOs view **consumer understanding** of labelling and **consumer ability** to manage food safely as poor
   - For producers, this translates into a **cautious approach to setting date marks** (i.e., more UB);
   - **Retailers’ preference for consistency** within product groups influences producers;
   - FBOs receive **no “counterweight” guidance** (e.g., from NCAs) to these factors, nor do they request it (with the exception of a few retailers)
   - NCAs consider that the setting of “Use By” versus “Best Before” date marks is a decision for FBOs to make on the basis of their technical knowledge of product and food safety.

2. **Shelf lives** are being set **shorter than necessary** because of:
   - Producers’ cautious assumptions about retailers’ storage conditions;
   - Retailers’ and producers’ cautious assumptions re household storage conditions.
A number of issues were identified prior to or during interviews with food supply chain stakeholders

3. Open-life advice is cautious
   - Open life is typically short, no longer than 3 days
   - This is due to FBO assumptions on consumer behaviour
   - Several producers mentioned that they include open-life advice only at the request of retailers

4. Annex X exemptions list
   - Many stakeholders approved of the existence of the list in principle…
   - …but expressed caution with respect to adding to it
   - Few stakeholders made any suggestions for additions to this list

5. Redistribution opportunities vary between Member States in relation to date marking, especially with respect to redistribution after BB date expiry
Conclusions and Recommendations
Conclusions

- Literature suggests that **date marks** are more influential in **consumer decision to discard** for **certain product types**: e.g. yoghurt, fresh juice, fresh meat.

- Estimates suggest that overall quantities of food waste linked to date marking amount to approximately 10% of the 88 million tonnes of EU-28 total food waste (FUSIONS, 2016)

- **Awareness of FIC regulation is high** across FBOs, NCAs and other stakeholders

- **Standard of implementation varies** between Member State and product types; legibility of wording particularly a problem for certain product formats

- Nearly all products sampled displayed just one date mark (“Best Before” or “Use By”).

- **Fresh milk and yoghurts were least consistent** in type of date mark applied, with Member State level practices informing choice.

- FBOs put forward technical arguments to inform date life and choice of date type…

- …but the study found that these choices were not reflected in remaining life of products purchased or variation in open life instructions.

- Understanding of a date mark type (UB/BB) appears to correlate with its market prevalence
Recommendations

1. Develop **guidance** on the FIC Regulation for FBOs and NCAs on choosing between “Use By” and “Best Before” **date mark types**

2. Develop **scientific/technical guidance** on setting shelf life, open life and related advice (incl. storage temperature)

3. Support research into **innovations in storage or labelling**, e.g.,:
   - Intelligent packing; Refrigerator design; Smart labels

4. Support new research into **consumer behaviour trials**, e.g.,:
   - Greater use of non-verbal information, such as symbols and logos.

5. **Collate existing research** prior to any consumer education campaign

6. Consult **packaging industry** (and share best practices) on:
   - Optimal layout of information on different packaging formats
   - Adhesiveness of inks
   - Consumer testing of logos
Our study will published towards the end of 2017

Thank you for listening!

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