The single-use plastics dilemma: Perceptions and possible solutions

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Study conducted by the Agri-food Analytics Lab at Dalhousie University
High-Level Findings

- **Regions, age groups** are significant socio-economic determinants, highly divided on SUP issue;
- **Atlantic Region** and **Quebec** seen as most mindful region; the **Prairies**, the least;
- **Millennials** and **Gen Z** generally more mindful than older generations;
- Most Canadians not willing to pay a **premium** above 2.5% for SUP solution at retail, but open to a **tax**;
- Majority of Canadians believe all **sectors** and levels of **government** are responsible;
- Mixed results on incentives provided to industry;
- **Knowledge** on solutions is mixed;
- **Bans** not as popular as use of **new technologies**;
- **Environmental concerns** more significant than **food safety**;
- **Biodegradable/compostable** solutions most popular with Canadians.
Recommendations (1)

- **Plastics** remaining in the packaging system need to be simplified and standardized across Canada;

- Better alignment between **food safety regulations** and the agri-food sector’s **environmental obligations** at all levels of government is key;

- Use of **compostable packaging** (plant-based polymers) should be encouraged and incentivized;

- Support for **research** and **commercialization** of compostable packaging should be enhanced, with active involvement of **municipalities**;

- Encourage industry to adopt a **circular economy model**, in line with the federal government’s zero plastic waste strategy;

Recommendations (2)

• The “naked food” model should be seen as a compelling option;

• Encourage the use of recyclable materials like cardboard, paper, foil wrapping;

• Consumer-centred solutions should be considered, but not prioritized;

• Taxation and bans should be considered as populist measures with limited and potentially compromising outcomes;
  • However, a voluntary phase-out of plastic bags should be implemented;

• Education: Industry should consider community events, campaigns for public awareness.
Research Design

• **Aims:** To better understand Canadian consumers' perspectives on single-use plastics in the food industry in Canada, and to explore possible solutions.

• **Methodology and sample design:** Exploratory study sample included 1,014 Canadians surveyed May 13 to 18, 2019. Results combine “Strongly agree” and “Agree”.

• **Margin of error:** 3.2%, 19 times out of 20 (margin of error not applicable to categorized data).

87.2% of respondents consider environmental impacts caused by single-use plastic food packaging to be important.

93.7% of respondents are personally motivated to reduce single-use plastic (SUP) food packaging because of its environmental impacts.

High motivation, Quebec and Atlantic respondents slightly more motivated to reduce SUP.

People earning more than $150k are slightly more motivated.

88.6% understand which alternative solutions are available for SUP food packaging.

Respondents in Atlantic and Quebec understand alternative solutions slightly more, along with respondents earning less than $39,999 and people living in a household with one child.
56.4% actively shop for food with non-plastic packaging.

One in two Canadians actively look for non-plastic packaging.

Women are more likely to actively seek non-plastic packaging than men.

British Columbians are more likely to actively look for NP packaging than respondents in the Prairies.

In the next six months, **56.6% of respondents** intend to increase food purchases that use green packaging.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Intent to Increase (%)</th>
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<tbody>
<tr>
<td>Before 1946</td>
<td>51.7%</td>
</tr>
<tr>
<td>From 1946 to 1964</td>
<td>41.3%</td>
</tr>
<tr>
<td>From 1965 to 1979</td>
<td>41.2%</td>
</tr>
<tr>
<td>From 1980 to 1994</td>
<td>53.2%</td>
</tr>
<tr>
<td>After 1994</td>
<td>59.0%</td>
</tr>
</tbody>
</table>

One in two Canadians intends to increase food purchases with green packaging.

*The younger the respondent, the more likely s/he intends to increase purchases of green packaging (corr.=.002).*

89.8% of respondents believe plastic packaging should be changed to green alternatives but not at additional cost.

Quebecers support green packaging but not at additional cost.
Influence on Change and Adaptation

89.8% of respondents believe that regulations to reduce consumption of single-use plastic packaging for food should be strengthened in Canada.

The older the respondent, the more likely s/he is to believe that regulations need to be strengthened (corr.=.001).

If more bans are enacted, **71.8% of respondents** think they should receive a discount, incentive or rebate for supporting alternative solutions.

The more **educated** a respondent, the less likely s/he would want a discount or incentive (corr. = .004).

Possible Solutions
37.7% of respondents are willing to pay more for an item with bio-degradable packaging.

The younger the respondent, the more like s/he is willing to pay more (corr. = .009).

Regions are divided on issue of paying more.

52.9% of respondents would accept paying a government tax to disincentivize consumption of single-use plastic food packaging.

The more educated the respondent, the more likely s/he would accept paying a tax (corr.=.004).

The more a respondent earns, the more likely s/he would accept paying a tax (corr.=.000).

23.2% of respondents would accept paying a fee to a food company for single-use plastic food packaging.

Little support for a fee to a food company.

The younger the respondent, the more likely s/he would accept paying a fee to a food company (corr.=.002).

71.2% of respondents support a ban of all single-use plastics used for food packaging.

Highest support for SUP ban in the Atlantic Region. Lowest support in the Prairies.

Corporate Social Responsibility (CSR) is considered the private sector's strategy to operate with the goal of boosting the triple-bottom line: people, planet, profit.

As part of CSR strategies in the food industry, 78.5% of respondents believe it should include minimum bio-degradable product standards and performance measurements for single-use plastic food packaging.
Respondents considered industry sectors to be mostly responsible for acting on and addressing the issue of plastics in Canada.

Majority of respondents consider all sectors to be responsible.
Respondents were asked to consider which level of government should be mostly responsible to act and address the issue of plastics in Canada.

Majority feels **all levels of government** are responsible.
45.2% of respondents are confused by branding and marketing of eco-friendly, single-use plastic food packaging.

A significant number of respondents are confused by branding and marketing of eco-friendly SUP food packaging.
83.3% of respondents are unwilling to pay more than 2.5% extra for a food product with green packaging.

The younger the respondent, the more likely s/he is willing to pay a premium for green packaging (corr.=.000).

Boomers are twice as likely as Gen Z’s to be unwilling to pay a premium.
83.3% of respondents would be unwilling to pay more than 2.5% extra for a food product with green packaging.

Respondents in the Prairies and Ontario slightly more reluctant to pay a premium for green packaging.

30.8% of respondents would purchase food packaged in biodegradable material.

Not a clear preferred solution perceived by respondents.

Other Findings

To reduce single-use plastic consumption, **89.1% of respondents** believe they should be **further educated** on recycling, plastic use and the overall environmental impacts.

**75.2% of respondents** believe **media coverage** and pressure on the food industry is an efficient single-use plastic food packaging reduction strategy.

**73.7% of respondents** believe a **corporate incentives** program is an efficient method of changing consumer behaviour towards single-use plastic food packaging.
How important is each of the **following factors** and **measures** on decisions to reduce the number of food items packaged in single-use plastics?

<table>
<thead>
<tr>
<th>Main factors (on 5-point Likert-type scale)</th>
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<tbody>
<tr>
<td>Environmental harm concerns</td>
<td>3.9</td>
</tr>
<tr>
<td>Food safety concerns</td>
<td>3.7</td>
</tr>
<tr>
<td>Overall knowledge and personal motivation</td>
<td>3.6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Preferred Measures (on 5-point Likert-type scale)</th>
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<tbody>
<tr>
<td>Alternative green packaging</td>
<td>3.3</td>
</tr>
<tr>
<td>Incentives, taxes and fees</td>
<td>3.2</td>
</tr>
<tr>
<td>Deposits and cash returns</td>
<td>3.1</td>
</tr>
<tr>
<td>Mandatory bans</td>
<td>3.0</td>
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</tbody>
</table>

While **environmental concerns** are more critical than **food safety**, **green packaging** is seen as more desirable than **bans**.

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