Consumer sensory testing

What

To ensure your product meets shopper standards, undergoing sensory testing as part of the reformulation process is vital.

Sensory testing is a scientific process allowing you to analyse and measure how consumers respond to a food or drink. This includes the taste, appearance, texture and smell.

Sensory testing should be conducted blind with samples randomly labelled, allowing panellists to be uninfluenced in their responses.

Why

It is important to measure your products’ sensory qualities to ensure they appeal to your consumer. Any changes made to your recipe should be tested to ensure that quality is not compromised. There are many uses for sensory testing such as:

- Comparing similarities and differences across a range of products
- Evaluating a range of existing products
- Measuring responses for a product
- Exploring a specific attribute of a product, such as flavour or texture
- Checking whether a final food product meets its original specification
- Providing feedback data to improve products

How

Depending on your budget, consumer sensory testing can be conducted either in-house or by external experts.

In-house sensory testing: Basic sensory testing can be conducted in-house. You’ll need to recruit an unbiased panel and ensure that the sensory testing environment is suitable. Lighting, temperature, noise, and smells can all affect the panellist’s responses to the sample, so ideally panellists should be isolated in testing booths. The ISO standard for the design of test rooms for sensory analysis of foods states the following:

“Conduct sensory evaluation under constant controlled conditions with minimum distractions to reduce the effects psychological factors and physical conditions can have on human judgement.”

External sensory testing: Specialist organisations can perform sensory testing for you. They have trained tasters and purpose-built sensory laboratories. This is the best option but there will be a charge.
There are two types of consumer sensory testing: preference and discrimination:

**Preference testing**

This method allows panellists to record whether they like or dislike the product.

Preference testing can be conducted in two ways:

- Paired comparison: prepare two samples of the product you are comparing and ask panellists to record which one they prefer.
- Hedonic: Prepare all the samples you wish to test and ask the panellists to rank them from 'Dislike a lot' to 'Like a lot'.

**Discrimination**

This method allows panellists to objectively measure a specific characteristic of a product, such as flavour or texture.

There are several ways to conduct discrimination testing:

- Triangle test: Prepare 3 samples (of which two are the same) and ask panellists which is the odd one out. This is useful to see if recipe changes can be noticed by the consumer.
- Ranking test: Prepare samples of the product to be tested and ask panellists to rank them for a stipulated attribute, such as sweetness.
- Paired comparison test: Prepare two samples of the product you’re comparing and ask panellists to compare them for a stipulated attribute such as flavour or texture.
- Profiling: Prepare samples and ask panellists to measure the product for several characteristics. This can be done as a chart to document the sensory profile of a product.

**Act**

Download our product benchmarking template which allows you to:

- Compare nutrition information
- Compare ingredients and weight information
- Compare health and nutrition claims
- Look at sensory properties

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