

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
SENSORY ANALYSIS OF FOODS

PART 2. SPECIFIC METHODS

AS 2542.2.3
METHOD 2.3: RATING

1 SCOPE. This Standard sets out guidelines for evaluating the magnitude of a predefined sensory characteristic, e.g. sweetness, on a response scale of finite length.

NOTE: When properly applied the response scale is an equal-interval scale; that is, it has an arbitrary zero, and is not affected by either addition of, or multiplication by, a constant. Thus, in comparison with physical scales of measurement it is analogous to the Celsius scale of temperature.

2 FIELD OF APPLICATION. Rating may be used for a broad range of purposes as follows:

- (a) *Intensity rating.* Intensity rating is used—
- (i) to measure the perceived magnitude of one or more sensory attributes of a sample, e.g. sweetness, flavour intensity, colour intensity; and
 - (ii) to determine, by inference, differences between samples with respect to the intensity of one or more sensory attributes.
- (b) *Hedonic rating.* Hedonic rating is used—
- (i) to measure the degree of liking (hedonic tone) of one or more sensory attributes of a sample; and
 - (ii) to determine, by inference, differences in degree of liking between samples with respect to one or more sensory attributes.

NOTE: When used to measure intensity, the scale is usually unipolar (unidirectional, see Figures A1 and A2); when used for hedonic assessment, the scale is usually bipolar (bidirectional, see Figures A3 and A4).

3 REFERENCED DOCUMENTS. The document below is referred to in this Standard:

AS
2542 Sensory analysis of foods
 Part 1: General guide to methodology (AS 2542.1)

4 PRINCIPLE. The assessor examines the sample and is required to indicate the magnitude of a predefined characteristic on a response scale of finite length.

5 TYPES OF RESPONSE SCALE. When the response scale consists of a number of categories/boxes, it is called a category scale; if panellists simply respond by marking a position on a line, it is called a graphic-rating scale, visual-analogue scale, or line-mark scale.

Numbers or descriptors are usually attached to the rating scale; physical reference standards may also be used.

When the category scale is used for hedonic assessment, there shall be an odd number of categories, e.g. 7, 9, 11; this permits the scale to be constructed symmetrically around an 'indifference point'.

With the category scale, it is preferable to use between 7 and 15 categories, e.g. a 13-point scale is less prone to bias than a 5-point scale. With the graphic rating scale, the physical length is usually greater than 100 mm; 150 mm is commonly used.

NOTE: Examples of various types of rating scales are given in Appendices A and B.

6 APPARATUS. The apparatus shall be selected by the test supervisor in accordance with principles laid down in AS 2542.1.