

Methods for sensory analysis of food —

Part 1: General guide to methodology —

[ISO title: Sensory analysis —
Methodology — General guidance]

UDC 664:543.92

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Food and Agriculture Standards Committee (FAC/-) to Technical Committee FAC/20 upon which the following bodies were represented:

- Agricultural and Food Research Council, Institute of Food Research
- British Essence Manufacturers' Association
- British Food Manufacturing Industries Research Association
- British Psychological Society
- Campden Food Preservation Research Association
- Co-operative Union
- Coffee Trade Federation Ltd.
- Consumers' Association
- Department of Trade and Industry (Laboratory of the Government Chemist)
- Flour Milling and Baking Research Association
- Food Manufacturers' Federation Incorporated
- Institute of Food Science and Technology
- Institute of Masters of Wine
- Joint Committee of the Milk Marketing Board and the Dairy Trade Federation
- Long Ashton Research Station
- Ministry of Agriculture, Fisheries and Food
- Retail Consortium
- Royal Society of Chemistry
- Society of Chemical Industry
- Society of Cosmetic Scientists
- Society of Dairy Technology
- University of Reading
- University of Strathclyde

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National foreword

This Part of BS 5929 has been prepared under the direction of the Food and Agriculture Standards Committee. It is the first revision of BS 5929-1:1980 on which ISO 6658 was based and which is withdrawn. It differs from BS 5929-1:1980 in that less detail is given for individual methods because these are now being published as other Parts of BS 5929. More guidance is given, however, for the interpretation of results, and there are changes in presentation.

This Part of BS 5929 is identical with ISO 6658-1985 “*Sensory analysis — Methodology — General guidance*”, published by the International Organization for Standardization (ISO), in the preparation of which the United Kingdom played a full part.

Terminology and conventions. The text of the international standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

Wherever the words “International Standard” appear, referring to this standard, they should be read as “British Standard”.

Cross-references

International standards	Corresponding British Standards
ISO 2854:1976	BS 2846 Guide to statistical interpretation of data Part 4:1976 Techniques of estimation and tests relating to means and variances (Identical)
ISO 3534:1977	BS 5532 Statistical terminology Part 1:1984 Glossary of terms relating to probability and general terms relating to statistics (Identical)
ISO 3591:1977	BS 5586 Sensory analysis apparatus Part 1:1978 Specification for wine-tasting glass (Identical)
ISO 3951:1981	BS 6002:1979 Specification for sampling procedures and charts for inspection by variables for percent defective (Technically equivalent) BS 5929 Methods for sensory analysis of food
ISO 4120:1983	Part 3:1984 Triangular test (Identical)
ISO 5495:1981	Part 2:1982 Paired comparison test (Technically equivalent)
ISO 6564:1985 ^a	Part 4:1986 Flavour profile methods (Identical)

^a Indicated in clause 2 as at the stage of draft but now published.

With regard to the reference to ISO 2859 in 6.3.6, reference should be made to BS 6001-1:1972. When the revision of ISO 2859 is published it is intended to publish it as an identical (dual-numbered) revision of BS 6001 “*Sampling procedures and tables for inspection by attributes*” — Part 1 “*Specification for sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection*”.

The various Parts of ISO 5492 which are referred to in clause 3 are being published in a single classified form and it is intended that the resulting international standard will be published as an identical (dual-numbered) revision of BS 5098:1975 *"Glossary of terms relating to sensory analysis of food"*. In the mean time the Technical Committee has reviewed the provisions of ISO 5492 and finds it suitable for use in conjunction with this Part of BS 5929 for the definitions of any terms not given in BS 5098. ISO 5492/6, indicated in clause 2 as at the stage of draft, has been published.

The Technical Committee has reviewed the provisions of ISO 3972, referred to in 4.5, ISO 5497, referred to in 4.6, and ISO 5494, referred to in 4.8, and finds them suitable for use in conjunction with this Part of BS 5929.

With regard to 5.2.6, 5.3, 5.3.2 and 5.4.3 respectively, it is intended that when ISO 8588, ISO 4121 and ISO 8587 are published, they will be published as identical (dual-numbered) British Standards.

Textual error. When adopting the text of the international standard, a textual error in 6.2.6 was discovered. It has been marked in the text and has been reported to ISO in a proposal to amend the text of the international standard as follows:

"The results of the test may be presented in a contingency table. The association between the proportions of samples actually "A" or "not A" and the proportions perceived as "A" or "not A" is tested by means of a χ^2 test."

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 14, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

0 Introduction

This International Standard constitutes a general introduction to the methodology of sensory analysis and should be read before undertaking the more detailed test procedures described in other International Standards. It covers the general area of methodology and is intended to fulfil the following functions:

- a) to provide a brief background of the essential features of methods of sensory analysis for the user of specific tests;
- b) to provide details of general requirements, procedures and interpretation of results common to all or most tests;
- c) to provide sufficient guidance on requirements, procedures and interpretation of results for the different specific tests to allow choice of the most appropriate procedure(s) for solution of a particular problem.

It comprises three main parts, covered in clauses 4, 5 and 6.

It is essential that clause 4 “General requirements” should be read first. Clause 5 “Test methods” describes, in a general manner, all the main tests, under five headings:

- a) Definitions.
- b) Application.
- c) Assessors.
- d) Procedure.
- e) Interpretation of results.

Clause 6 “Analysis of results” is concerned with the statistical treatment of the results and should be read in conjunction with the cross-references in the text headed “Interpretation of results” in clause 5 “Test methods”.

1 Scope and field of application

This International Standard gives general guidance on the methodology of sensory analysis. It describes tests for the examination of food products by sensory analysis, and includes some information on the techniques to be used if statistical analysis of the results is required. The principles embodied in them may apply to the examination of other products by means of the human senses. Generally these tests are intended only for sensory analysis in laboratories, and are not applicable to the determination of the consumer’s preference. However, if the test can be used for determining preference, this is indicated in the subclauses entitled “Application”.

2 References

ISO 2854, *Statistical interpretation of data — Techniques of estimation and tests relating to means and variances*.

ISO 2859, *Sampling procedures and tables for inspection by attributes*¹⁾.

ISO 3534, *Statistics — Vocabulary and symbols*.

ISO 3591, *Sensory analysis — Apparatus — Wine-tasting glass*.

ISO 3951, *Sampling procedures and charts for inspection by variables for percent defective*.

ISO 3972, *Sensory analysis — Determination of sensitivity of taste*.

ISO 4120, *Sensory analysis — Methodology — Triangular test*.

ISO 4121, *Sensory analysis — Methodology — Grading of food products by methods using scales and categories*²⁾.

ISO 5492/1 to 6, *Sensory analysis — Vocabulary*³⁾.

ISO 5494, *Sensory analysis — Apparatus — Tasting glass for liquid products*.

ISO 5495, *Sensory analysis — Methodology — Paired comparison test*.

ISO 5497, *Sensory analysis — Methodology — Guidelines for the preparation of samples for which direct sensory analysis is not feasible*.

ISO 6564, *Sensory analysis — Methodology — Flavour profile methods*²⁾.

ISO 8587, *Sensory analysis — Methodology — Ranking*²⁾.

ISO 8588, *Sensory analysis — Methodology — “A”–“not A” test*²⁾.

¹⁾ At present at the stage of draft. (Revision of ISO 2859-1974.)

²⁾ At present at the stage of draft.

³⁾ Part 6 is at present at the stage of draft.