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**Sensory analysis — General guidelines
for the selection, training and
monitoring of selected assessors and
expert sensory assessors**

*Analyse sensorielle — Lignes directrices générales pour la sélection,
l'entraînement et le contrôle des sujets qualifiés et sujets sensoriels
experts*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 8586 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 12, *Sensory analysis*.

This first edition of ISO 8586 cancels and replaces ISO 8586-1:1993 and ISO 8586-2:2008. The main requirements and criteria for the selection, training and monitoring of selected assessors and of expert sensory assessors have been revised to summarize the information given in ISO 8586-1:1993 and ISO 8586-2:2008.

This corrected version of ISO 8586:2012 incorporates the following correction:

- in [Table B.3](#), third column, fourth line, the formula for calculation of S_7 has been corrected.

Introduction

A sensory analysis panel constitutes a true “measuring instrument”, and consequently the results of the analysis depends on its members.

The recruitment of persons willing to participate in a panel therefore needs to be carried out with care and to be considered as a real investment, both in time and money.

Sensory assessment can be performed by three types of assessors:

- sensory assessors;
- selected assessors;
- expert sensory assessors.

“Sensory assessors” are any people taking part in a sensory test. They can be “naive assessors” who do not have to meet any precise criterion, or “initiated assessors” who have already participated in sensory tests (see ISO 5492:2008, 1.5).

“Selected assessors” are chosen for their ability to perform a sensory test (see ISO 5492:2008, 1.6).

“Expert sensory assessors” are selected assessors with a demonstrated sensory sensitivity and with considerable training and experience in sensory testing, who are able to make consistent and repeatable sensory assessments of various products (see ISO 5492:2008, 1.8).

It is necessary to undertake a preliminary selection of the candidates at the recruitment stage, in order to eliminate those who would be unsuited for sensory analysis. However, the final selection can only be made after selection and training. The selection and training methods to be employed depend on the tasks to intend for the “selected assessors” and “expert sensory assessors”.

Sensory assessors work as a panel which is managed by a panel leader. In certain cases (especially for descriptive sensory analysis), the panel may be divided into specialized subgroups.

The recommended procedure involves:

- a) recruitment and preliminary screening of naive assessors;
- b) familiarization of naive assessors who are to become initiated assessors;
- c) selection of initiated assessors in order to determine their ability to perform particular tests, who then become selected assessors;
- d) possible training of selected assessors to become expert sensory assessors.

The exact procedures covered by a) and b) and the nature of the tests performed in c) and d) depend on the tasks intended for the panel.

Expert sensory assessors have demonstrated particular acuity and reproducibility in panel work, and have developed a good long-term sensory memory, allowing reliable comparative judgements, possibly in the absence of control samples.

The panel leader is responsible for the general monitoring of the group of expert sensory assessors and for their training. The expert sensory assessors are not responsible for the choice of tests used, the presentation of the samples or for the interpretation of results. These matters are the responsibility of the panel leader who also decides how much information is given to the panel.

The performance of selected assessors should be monitored regularly to ensure that the criteria by which they were initially selected continue to be met.

The entire process is illustrated in [Figure 1](#).

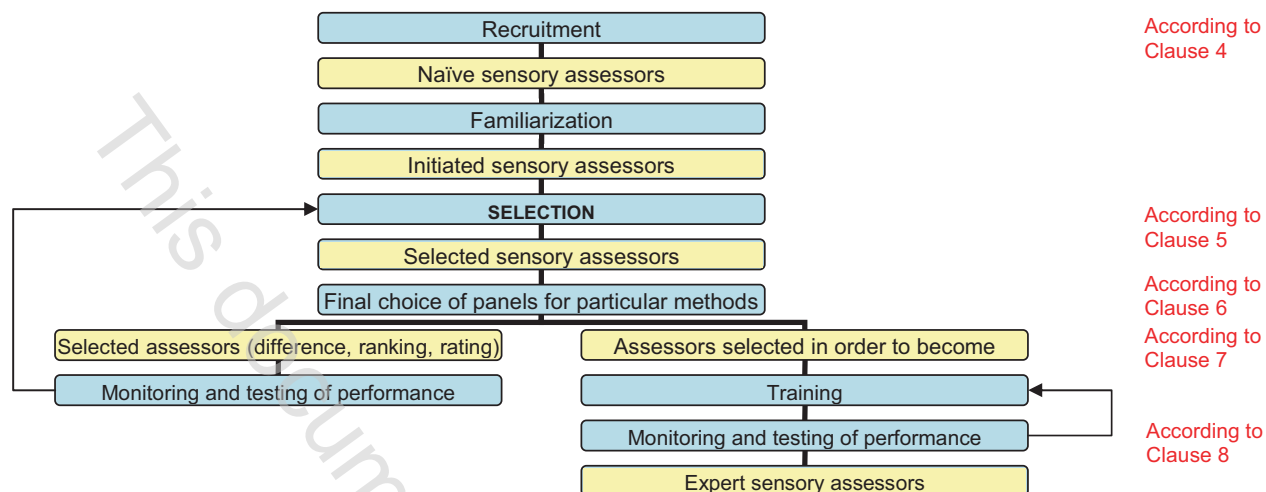


Figure 1 — Entire process

Sensory analysis — General guidelines for the selection, training and monitoring of selected assessors and expert sensory assessors

WARNING — This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This International Standard specifies criteria for the selection and procedures for the training and monitoring of selected assessors and expert sensory assessors. It supplements the information given in ISO 6658.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5492:2008, *Sensory analysis — Vocabulary*

ISO 6658, *Sensory analysis — Methodology — General guidance*

ISO 8589, *Sensory analysis — General guidance for the design of test rooms*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5492 and the following apply.

3.1

repeatability

precision under repeatability conditions

Note 1 to entry: Repeatability can be expressed quantitatively in terms of the dispersion characteristics of the results.

[SOURCE: ISO 3534-2:2006, 3.3.5]

Note 2 to entry: Repeatability related to sensory analysis is defined as a measure of the agreement between assessments on the same sample under the same conditions. See [Table A.1](#).

3.2

repeatability conditions

observation conditions where independent test/measurement results are obtained with the same method on identical test/measurement items in the same test facility or measuring facility by the same operator using the same equipment within short intervals of time

Note 1 to entry: Repeatability conditions include:

- the same measurement procedure or test procedure;
- the same operator;
- the same measuring or test equipment used under the same conditions;