
International Standard 5495

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Sensory analysis — Methodology — Paired comparison test

Analyse sensorielle — Méthodologie — Essai de comparaison par paires

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Descriptors : sensory analysis, tests, sensorial properties, comparison analysis, testing conditions.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5495 was developed by Technical Committee ISO/TC 34, *Agricultural food products*.

This second edition was submitted directly to the ISO Council, in accordance with clause 6.11.2 of part 1 of the Directives for the technical work of ISO. It cancels and replaces the first edition (i.e. ISO 5495-1981), which had been approved by the member bodies of the following countries:

Australia	Hungary	Romania
Bulgaria	India	South Africa, Rep. of
Canada	Israel	Thailand
Cyprus	Kenya	Turkey
Czechoslovakia	Korea, Rep. of	United Kingdom
Egypt, Arab Rep. of	Mexico	USA
Ethiopia	Netherlands	Yugoslavia
France	New Zealand	
Germany, F.R.	Poland	

No member body had expressed disapproval of the document.

Sensory analysis — Methodology — Paired comparison test

1 Scope

This International Standard specifies a technique for detecting differences in the organoleptic attributes of two products.

It is necessary to know, from the start, whether the test is a **one-sided test** (one direction is of particular interest) or a **two-sided test** (both directions are of equal interest).¹⁾

2 Field of application

The paired comparison test may be used for the following purposes :

- a) directional differences : in order to determine the direction of the differences between two test samples for a specified attribute (for example more or less sweet);
- b) preference : in order to establish whether there is a preference between two test samples (for example in consumer tests);
- c) training assessors : in order to select, train and check the performance of assessors.

3 References

ISO 3534, *Statistics — Vocabulary and symbols*.

ISO 5492, *Sensory analysis — Vocabulary*.

4 Definitions

For definitions of terms relating to sensory analysis, see ISO 5492, and for those referring to statistics, see ISO 3534.

5 Principle

Presentation of a pair of samples to assessors; one sample may be a control.

Following testing, written response by the assessors, and interpretation of the replies obtained.

6 Apparatus

The apparatus shall be selected by the test supervisor, according to the nature of the product to be analysed, the number of samples, etc., and shall in no way affect the test results.

If standardized apparatus corresponds to the needs of this test, it shall be used.

7 Sampling

Refer to the International Standards relating to sampling, for sensory analysis, of the product or products to be examined.

8 General test conditions

8.1 Room

The conditions in the room in which tests are to be conducted will form the subject of a future International Standard.

8.2 Assessors

8.2.1 Qualification, selection, aptitude

The conditions which the assessors shall fulfil will form the subject of a future International Standard.

8.2.2 Number of assessors

In general, for the statistical validity of the test, the minimum number of assessors is :

- a) for directional tests : 7 experts or 20 qualified assessors;
- b) for tests of preference : 30 untrained assessors, and, if possible, one or several hundred;
- c) for training assessors : a variable number of assessors according to the test.

¹⁾ General guidance on the methodology of sensory analysis and definitions of these terms will form the subject of ISO 6658.