

ICS 67.240
CCS B 04



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 12310-2012

Replacing GB/T 12310-1990

Sensory analysis method -- Paired comparison test

感官分析方法 成对比较检验

(English Translation)

Issued on: June 29, 2012

Implemented on: November 1, 2012

Issued by: Standardization Administration of China

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Foreword

This standard is based on GB/T 1.1-2009 given rule drafting.

This standard replaces GB/T 12310-1990 "Sensory Analysis pairwise comparison test", compared with the GB/T 12310-1990, which the main technical changes are as follows.

- Increased inspection procedures and some examples of similar description (see Chapter 1);
- Added "Terms and Definitions", "principle", "assessors" (see Chapter 3, Chapter 4 and Chapter 6);
- Remove the "Method Synopsis", "equipment" and "sampling" (see the 1990 edition of Chapter 3, Chapter 4 and Chapter 5);
- "General Test Conditions" the conditions will be specifically itemized (see Chapter 5), rather than reference to other standards (see the 1990 edition Chapter 6); this chapter deleted the evaluators requirements, but as detailed in a separate article (see Chapter 6);
- "Test step", "results presentation and interpretation" (see the 1990 edition of Chapters 7 and 8) is changed to "Programs", "Analysis and the expression" and (see Chapters 7 and

8);

--- Added "precision and bias" (see Chapter 10);

--- Appendix A, Appendix B to delete "answer format," adds statistical tables and examples.

This revised standard adopts ISO 5495:2005 "Sensory analysis Methodology pairwise comparison test" (in English). And ISO 5495.

Compared to 2005, this standard has been adjusted technical differences, specific adjustments are as follows.

a) on "Normative references".

--- With GB/T 10220 replaces ISO 6658. 1985;

--- With GB/T 10221 replaces ISO 5492:1992;

--- With GB/T 13868 replaces ISO 8589. 1988;

--- With GB/T 14195 replaces ISO 8586-1:1993;

--- With GB/T 16291.2 replaces ISO 8586-2:1994.

b) Delete the ISO standard foreword, preface increased our standards.

c) in the "1" and examples of Figure 1 in Appendix Edit B.

d) ISO standard 3.7 "consensus answer bilateral test for the highest value selecting samples A and B the number of assessors" and 8.1.1 "Delete last sentence beginning 'inconclusive'" technical corrections included in standard text.

This standard is proposed and managed by the People's Republic of China Ministry of Agriculture.

This standard was drafted. Quality Standards and Testing Institute of Agricultural Technology Chinese Academy of Agricultural Sciences, the Ministry of Agriculture Food Quality Supervision and Testing Center (Jinan).

1 Scope

This standard specifies the determination sensory perceptible difference or similar program between the two sample product organoleptic characteristics strength exists.

Note: This test is also sometimes referred to as directional difference test or 2-AFC test (alternative forced-choice test). Pairwise comparison test is essentially forcing a second election Select test. Because it involves only two products, paired comparison test is the simplest existing classification test.

This standard applies to single organoleptic properties or characteristics of several differences exist, it refers to a known characteristics to determine whether the presence of

the senses and identify differences in the range of difference, but it does not give the extent of the differences explained. No differences in characteristics evaluation does not mean that the two products do not exist any What difference.

This standard applies only to a relatively uniform homogeneous product.

This standard applies to the following.

a) determining

--- If there feel the difference (paired difference test);

--- If there is no sense of difference (paired similarity test), for example, when the ingredients, technology, packaging, handling or storage improvements.

b) Preferably, training and inspection assessor should know before carrying out inspection, testing unilateral inspection (inspection supervisor know in advance the difference between the scope and the alternative hypothesis is equivalent to the expected range Inner circle differences exist) or bilateral inspection (inspection supervisor in advance do not know the difference between covering, and the alternative hypothesis is equivalent to one or the other Within a range of external differences exist).

Paired test also applies to the comparison of the two products according to preference.

Paired difference test case shown in Figure B.1.

Note: This standard is only used for non-preference test.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 10220 Sensory analysis Subjects (GB/T 10220-2012, ISO 6658:2005, IDT) GB/T 10221 Sensory analysis terminology (GB/T 10221-2012, ISO 5492:2008, MOD) GB/T 13868 Sensory analysis sensory analysis laboratory to establish general guidelines (GB/T 13868-2009, ISO 8589:2007, IDT) GB/T 16291.1 sensory analysis selection, training and monitoring of assessors General guidance Part 1. selected assessors (GB/T 16291.1-2012, ISO 8586-1:1993, MOD) GB/T 16291.2 sensory analysis selection, training and monitoring of assessors general guidelines - Part 2. Expert reviewers (GB/T 16291.2-2010, ISO 8586-2:2008, IDT)

3 Terms and Definitions

GB/T 10221 and defined by the following terms and definitions apply to this document.

alpha- risk when there is no difference between the senses, to infer the probability of

sensory differences exist.

Note: This is also known as Type I error, significance level or false positive rate.