
Pristnost živil - Netargetirane metode preskušanja - 1. del: Splošne ugotovitve in definicije

Food authenticity - Non-targeted testing methods - Part 1: General considerations and definitions

Lebensmittelauthentizität - Nicht-zielgerichtete Prüfverfahren - Teil 1: Allgemeines und Begriffe

Authenticité des aliments - Méthodes d'essai non ciblées - Partie 1 : Généralités et définitions

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English Version

**Food authenticity - Non-targeted testing methods - Part 1:
General considerations and definitions**

Authenticité des aliments - Méthodes d'essai non
ciblées - Partie 1 : Généralités et définitions

Lebensmittelauthenzität - Nicht-zielgerichtete
Prüfverfahren - Teil 1: Allgemeines und Begriffe

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European foreword

This document (EN 18218-1:2026) has been prepared by Technical Committee CEN/TC 460 “Food authenticity”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2027, and conflicting national standards shall be withdrawn at the latest by March 2027.

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EN 18218, *Food authenticity — Non-targeted testing methods*, is currently composed with the following parts:

— *Part 1: General considerations and definitions*

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Introduction

Food and feed authentication aims at verifying whether a product claim matches with the expected product characteristics. Traditionally, the majority of analytical methods for food authentication are based on targeted approaches. However, non-targeted testing methods (NTTM) could provide a more cost-effective approach for authentication of food and feed in the increasingly complex international supply chain. Product characteristics of interest are for instance:

- the geographical origin of a product (e.g. a declared country of origin or a region indicated by “Protected Designation of Origin” or “Protected Geographical Indication” food labels);
- the biological origin (e.g. a declared species or variety);
- the production mode (e.g. produced under organic conditions);
- the absence of adulterants.

A targeted method aims for specific parameters, compounds or markers in a food product. A NTTM provides a broad subset of chemical/physical features of the product and can detect expected and unexpected alterations in a food product. The product characteristics often cannot be directly measured, but they can be modelled and predicted from measurable analytical features using classification methods.

A NTTM used for authenticating food analyses a food product bearing a specific claim, and can be used to compare the data with those of known authentic materials. The outcome allows to verify whether the characteristics of the food product and the claim match. Research on NTTM has mainly been driven by the following factors:

- food product claims have become more complex by declaring, e.g. variety, breed, production and food transformation processes;
- more food inspections are wanted by stakeholders such as government agencies, policy makers, control laboratories, producers, industry and consumers in order to provide evidence about the quality, authenticity and integrity on the large volume of food traded globally.

Until now, no European standard is available for the validation of NTTM in food authenticity. Not having widely accepted guidelines complicates the acceptability of results of NTTM used in the analysis of food authenticity. Such methods are regarded as a useful complement to other risk-based food controls to detect fraudulent and deceptive practices.

1 Scope

This document provides a common language covering NTTM in food and feed authentication. It provides:

- definitions of terms involved in the development and validation of NTTM;
- a general structure and guidelines for development of NTTM;
- general considerations for the validation of NTTM.

NOTE “Food and feed” is implied whenever the term “food” is used in this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 17972:2024, *Food authenticity — Food authenticity and fraud — Concepts, terms, and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17972:2024 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 General terms

3.1.1

adulterant

material used to adulterate food

3.1.2

adulteration

intentionally adding an undeclared ingredient to the food product, or substituting a declared ingredient with another ingredient, or increasing the volume of a liquid product by dilution

Note 1 to entry: In practice, there might not be a clear difference between dilution, addition, and substitution, and it might be difficult to distinguish between them.

[SOURCE: EN 17972:2024, 3.20]

3.1.3

analytical features

collection of observations from analysed samples

Note 1 to entry: Analytical features can include, but are not limited to, quantities of discrete elements/molecules/marker compounds or electronic records of *analytical measurement techniques* (3.3.1) such as spectra, sequences (e.g. gene/peptide), or chromatograms.