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Third edition  
2005-02-01

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**Microbiology of food and animal feeding  
stuffs — Horizontal method for the  
detection and enumeration of  
presumptive *Escherichia coli* — Most  
probable number technique**

*Microbiologie des aliments — Méthode horizontale pour la recherche et  
le dénombrement d'Escherichia coli présumés — Technique du nombre  
le plus probable*



Reference number  
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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 7251 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*.

This third edition cancels and replaces the second edition (ISO 7251:1993), and also ISO 11866-1:1997 and IDF 170-1:1999.

Clauses 4, 9 and 10 of ISO 7251:1993 have been technically revised. The main changes are as follows:

- the temperature of the second incubation is now  $44\text{ °C} \pm 1\text{ °C}$  (see 4.2.5);
- detection (9.1) and enumeration (9.2) of presumptive *E. coli* are covered;
- the use of five tubes per dilution is allowed for some specific products (see 9.2.2.1);
- some products (dairy products) may hinder the collection of gas (see 9.1.2 and 9.2.2.5);
- the MPN calculation refers to ISO 7218 (see Clause 10).

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## Introduction

Because of the large variety of products within this field of application, these guidelines may not be appropriate in every detail for certain products, and for some other products it may be necessary to use different methods. Nevertheless, it is hoped that in all cases every attempt will be made to apply the provided guidelines as far as possible and that deviations from them will only be made if absolutely necessary for technical reasons.

When this International Standard is next reviewed, account will be taken of all information then available regarding the extent to which the guidelines have been followed and the reasons for deviations from them in the case of particular products.

The harmonization of test methods cannot be immediate, and for certain groups of products International Standards and/or national standards may already exist that do not comply with these guidelines. In cases where International Standards already exist for the product to be tested, they should be followed, but it is hoped that when such standards are reviewed they will be changed to comply with this International Standard so that eventually the only remaining departures from these guidelines will be those necessary for well-established technical reasons.