

**Toiduainete ja loomasöötade mikrobioloogia.  
Üldjuhend mikrobioloogilisteks uuringuteks**

Microbiology of food and animal feeding stuffs -  
General rules for microbiological examinations

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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# INTERNATIONAL STANDARD

**ISO  
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Second edition  
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## **Microbiology of food and animal feeding stuffs — General rules for microbiological examinations**

*Microbiologie des aliments — Règles générales pour les examens  
microbiologiques*



Reference number  
ISO 7218:1996(E)

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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.

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.

International Standard ISO 7218 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 9, *Microbiology*.

This second edition cancels and replaces the first edition (ISO 7218:1985), which has been technically revised.

Annexes A and B form an integral part of this International Standard. Annex C is for information only.

## Introduction

When conducting microbiological examinations, it is especially important

- that only those microorganisms which are present in the samples are isolated or enumerated, and
- that the microorganisms do not contaminate the environment.

In order to achieve this, it is necessary to pay attention to personal hygiene and to use working techniques which ensure, as far as possible, exclusion of extraneous contamination (see clause 5).

Since, in this International Standard, it is possible to give only a few examples of the precautions to be taken during microbiological examinations, a thorough knowledge of the microbiological techniques and of the microorganisms involved is essential. It is important that the analyses be conducted as accurately as possible, including calculation of the number of microorganisms and the variability of the results (part of this is given by the confidence limits; see clause 9).

Ultimately, it is the responsibility of the head of the laboratory to judge whether the manipulations are safe and can be considered to be good laboratory practice.

A large number of manipulations can, for example, unintentionally lead to cross-contamination and the analyst should always verify the accuracy of the results given by his or her technique.

In order to conduct the examinations correctly, it is necessary to take certain precautions when constructing and equipping the laboratory (see clause 3).

Certain precautions must be taken, not only for reasons of hygiene, but also to ensure good reproducibility of the results. It is not possible to specify all the precautions to be taken in all circumstances, but this International Standard at least provides the main measures to be taken when preparing, sterilizing and storing the media and the equipment (see clauses 6 and 7).

If the guidance given in this International Standard is followed, this will also contribute towards the protection of the health of the personnel. Additional information on this subject is to be found in the literature listed in annex C.

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# Microbiology of food and animal feeding stuffs — General rules for microbiological examinations

## 1 Scope

This International Standard gives general instructions for carrying out microbiological examinations in accordance with specific standards.

The purpose of this International Standard is to help to ensure the validity of the examinations, to ascertain that the general techniques used for conducting these examinations are the same in all laboratories, to help achieve homogeneous results in different laboratories, and to contribute towards the protection of the health of the laboratory personnel by preventing risks of infection.

This International Standard may be used wholly or partly for the accreditation of a laboratory by national organizations.

## 2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6887:1983, *Microbiology - General guidance for the preparation of dilutions for microbiological examination*

## 3 Premises

### 3.1 Test areas

The areas required for the specific operation of a microbiology laboratory are as follows:

- receipt, storage, preparation and processing of the samples;
- preparation and sterilization of culture media and equipment;
- performance of analyses: weighing, dilutions, inoculations, subculturing, incubation, preservation of the strains, etc.;
- decontamination and cleaning of equipment, and processing of the analysis waste.