

TOIDU JA LOOMASÖÖTADE MIKROBIOLOOGIA
Horisontaalmeetod *coli*-laadsete arvuliseks määramiseks
Kolooniate loendamise meetod

Microbiology of food and animal feeding stuffs
Horizontal method for the enumeration of coliforms
Colony-count technique
(ISO 4832:2006)

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

Käesolev Eesti standard EVS-ISO 4832:2010 "Toidu ja loomasöödade mikrobioloogia. Horisontaalne meetod *coli*-laadsete arvuliseks määramiseks. Kolooniade loendamise meetod" sisaldab rahvusvahelise standardi ISO 4832:2006 "Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coliforms - Colony-count technique" identset ingliskeelset teksti.

Standard EVS-ISO 4832:2010 on kinnitatud Eesti Standardikeskuse 07.09.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti Standardikeskusest.

This Estonian Standard EVS-ISO 4832:2010 consists of the identical English text of the International Standard ISO 4832:2006 "Microbiology of food and animal feeding stuffs - Horizontal method for the enumeration of coliforms - Colony-count technique".

This standard is ratified with the order of Estonian Centre for Standardisation dated 07.09.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian Centre for Standardisation.

Käsitlusala

Käesolev rahvusvaheline standard annab *coli*-laadsete mikroorganismide arvulise määramise põhijuhised. See on rakendatav:

- toiduks kasutatavatele toodetele ja loomasöödadele ning
- keskkonnaproovidele toidu tootmise ja toidu käitlemise piirkonnas

kolooniade loendamise tehnikaga pärast tardsöötmetel kasvatamist 30 °C või 37 °C juures.

MÄRKUS Temperatuuri lepivad kokku asjahuvilised osapooled. Piima ja piimatoodete korral on inkubeerimistemperatuuriks 30 °C.

Käesolevat meetodit soovitatakse kasutada siis, kui eeldatav kolooniade arv milliliitris või grammis katseproovis on üle 100.

ICS 07.100.30 Toiduainete mikrobioloogia**Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele**

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

Right to reproduce and distribute belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without permission in writing from Estonian Centre for Standardisation.

If you have any questions about standards copyright, please contact Estonian Centre for Standardisation:
Aru str 10 Tallinn 10317 Estonia; www.evs.ee; Phone: 605 5050; E-mail: info@evs.ee

Introduction

Because of the large variety of food and feed products, this horizontal method may not be appropriate in every detail for certain products. In this case, different methods which are specific to these products may be used if absolutely necessary for justified technical reasons. Nevertheless, every attempt should be made to apply this horizontal method as far as possible.

When this International Standard is next reviewed, account will be taken of all information then available regarding the extent to which this horizontal method has been followed and the reasons for deviations from this method 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 this horizontal method. 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 this horizontal method will be those necessary for well-established technical reasons.

The technique described in this International Standard is more precise than that described in ISO 4831^[1], but does not allow a microbiological examination to be carried out on such a large test portion. It is therefore the preferred method when large numbers of coliforms are present. Moreover, since the definition of “coliforms” adopted in the two documents is different, the microorganisms enumerated are not necessarily the same. For any particular product, the method to be chosen will be specified in the International Standard dealing with that product.

For the purposes of a practicable test method, the definition of “coliforms” given in Clause 3 and used as the basis for the procedure is not necessarily identical to corresponding definitions given in other published texts. The method described in this International Standard will, on average, detect only about 90 % of strains of the microorganisms referred to in other publications as “(presumptive) coliforms” (e.g. certain strains of *Citrobacter*, *Enterobacter*, *Klebsiella*) (see Reference [2]).

Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coliforms — Colony-count technique

1 Scope

This International Standard gives general guidelines for the enumeration of coliforms. It is applicable to

- products intended for human consumption and for the feeding of animals, and
- environmental samples in the area of food production and food handling,

by means of the technique of counting colonies after incubation on a solid medium at 30 °C or at 37 °C.

NOTE The temperature is subject to agreement between the parties concerned. In the case of milk and milk products, the temperature of incubation is 30 °C.

This technique is recommended when the number of colonies sought is expected to be more than 100 per millilitre or per gram of the test sample.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 6887 (all parts), *Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination*

ISO 7218:—¹⁾, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

ISO 8261, *Milk and milk products — General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination*

ISO/TS 11133-1, *Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media — Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory*

ISO/TS 11133-2:2003, *Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media — Part 2: Practical guidelines on performance testing of culture media*

1) To be published.