Loomasööt. Bifidobacterium spp. isoleerimine ja loendamine

Animal feeding stuffs - Isolation and enumeration of Bifidobacterium spp.





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NATIONAL FOREWORD

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Aliments des animaux - Isolement et dénombrement du Bifidobacterium spp.

Futtermittel - Keimzählung von Bifidobacterium spp.

This European Standard was approved by CEN on 1 August 2009.

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Foreword

This document (EN 15785:2009) has been prepared by Technical Committee CEN/TC 327 "Animal feeding stuffs", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by March 2010, and conflicting national standards shall be withdrawn at the latest by March 2010.

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Introduction

This methodology has been developed to enumerate and differentiate probiotic bifidobacteria, to enable the European Commission to control proper labelling of animal feed stuffs (EU project SMT4-CT98-2235 - "Methods for the official control of probiotics (microorganisms) used in animals feeds") [1]. The proposed enumeration method for probiotic bifidobacteris was validated in an interlaboratory study [2].

The method is not selective for probiotic bifidobacteria but can be applied to enumerate them in additives, premixtures and feeding stuffs assuming that they are present in higher numbers than any other bacteria.



1 Scope

This European Standard defines general rules for the enumeration of probiotic bifidobacteria in feed samples (additives, premixtures and feeding stuffs) that contain bifidobacteria as a single bacterial component or in a mixture with other microorganisms. This standard is not applicable for mineral feeds which are defined as complementary feeding stuffs composed mainly of minerals and containing at least 40% crude ash (Council Directive 79/373/EEC) [3].

There are different categories of feed samples:

- a) Additives containing about 10¹⁰ colony forming units (CFU)/g
- b) Premixtures containing about 10⁸ CFU/g
- Feeds, meal or pellets, which contain about 10⁶ CFU/g and include complete feeding stuffs, and milk replacers.

The detection limit is as defined in EN ISO 7218.

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.

EN ISO 6887-1, Microbiology of food and animal feeding stuffs - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination - Part 1: General rules for the preparation of the initial suspension and decimal dilutions (ISO 6887-1:1999)

EN ISO 7218, Microbiology of food and animal feeding stuffs - General requirements and guidance for microbiological examinations (ISO 7218:2007)

ISO 6498, Animal feeding stuffs – Preparation of test samples

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

bifidobacteria (described by their characteristics as used for this standard)

bacteria which form colonies fitting the descriptions of the species, on the specified media of 36 h to 48 h at a temperature of 37°C under incubation; anaerobic conditions)

Morphology of colonies:

- a) circular;
- b) convex;
- c) entire;
- d) cream;