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SWEDISH STANDARDS INSTITUTE

Microbiology of food and animal feed – Primary production stage – Sampling techniques (ISO 13307:2013)

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Europastandarden EN ISO 13307:2013 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 13307:2013.

The European Standard EN ISO 13307:2013 has the status of a Swedish Standard. This document contains the official version of EN ISO 13307:2013.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Livsmedel och foder, SIS/TK 435.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 13307

March 2013

ICS 07.100.30

English Version

Microbiology of food and animal feed - Primary production stage - Sampling techniques (ISO 13307:2013)

Microbiologie des aliments - Stade de production primaire - Techniques de prélèvement (ISO 13307:2013)

Mikrobiologie von Lebensmitteln und Futtermitteln - Primärproduktion - Probenahmetechniken (ISO 13307:2013)

This European Standard was approved by CEN on 1 March 2013.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 13307:2013) has been prepared by Technical Committee CEN/TC 275 “Food analysis - Horizontal methods”, the secretariat of which is held by DIN, in collaboration with Technical Committee ISO/TC 34 "Food products".

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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Microbiology of food and animal feed — Primary production stage — Sampling techniques

1 Scope

This International Standard specifies sampling techniques within the primary food-animal production stage, for detection or enumeration of viable microorganisms with particular reference to food-borne pathogens.

This International Standard is not intended for use in diagnosis of animal disease.

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 6887-1, *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 7218, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

3 Terms and definitions

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

3.1
primary production stage
includes all the stages of food production from farm until harvest or entry to the slaughterhouse

3.2
laboratory sample
sample prepared for sending to the laboratory and intended for inspection or testing

4 General arrangement

4.1 General

The parties concerned or their representatives may be given the opportunity to be present when sampling is performed.

Whenever special, e.g statutory, requirements are given for the sampling and/or arise from a specific analysis to be performed, these requirements shall be followed.

4.2 Sampling personnel

Sampling for microbiological examination shall always be undertaken by a person trained and experienced in the technique of sampling for microbiological purposes.

4.3 Packing and labelling of samples

Samples shall be packed in order to avoid cross-contamination and to prevent leakage or loss of moisture. They shall be clearly identified.

The minimum details that shall accompany the samples are: the nature of the matrix, its identification, the name or initials of the person responsible for taking the samples, as well as the date, time (if appropriate), and place of sampling.

This information should be recorded on a form. One form can be used for several samples provided each has unique identification and the samples are accompanied by the sampling form which lists the sample details with their unique identifying codes.

4.4 Preparation of a sampling form

Samples shall be accompanied by a report, ideally completed on a standard form provided by the laboratory, signed or initialled by the sampling personnel. The report shall give the following particulars:

— the place, date and time (if appropriate)of sampling;

— the names of the sampling personnel;

— the nature, number, and identity of samples constituting the consignment;

— the purpose of sampling and the microorganisms to be sought.

When appropriate, the report shall also include any relevant conditions or circumstances, and any special information relating to the product being sampled, e.g. difficulty in achieving representative samples.

If any additives such as diluents, transport media or neutralizing agents are used, these shall be recorded.

5 Diluents and disinfectants

5.1 Diluents.

5.1.1 General. Diluent used for moistening all kind of swabs (bootswabs, stick swabs etc.):

— peptone salt solution prepared according to ISO 6887-1;

— buffered peptone water prepared according to ISO 6887-1;

— sterile water;

— potable water for samples where this would not interfere with the analysis, e.g. bootswabs.

5.1.2 Medium for transporting swabs for specific purposes. The general aim of these media is to ensure survival of the target population, e.g. *Campylobacter* are particularly sensitive to drying.

Examples of transport media:

— buffered peptone water for *Salmonella* prepared according to ISO 6887-1;

— Cary–Blair transport medium or equivalent;

— Amies charcoal transport medium or equivalent.

In circumstances where the sample is acidic or alkaline, or may become so during transportation, it may be useful to use a buffered diluent.

Consideration should be given, if enumeration is intended, to the possibility of multiplication of the target or competing organisms before examination in the laboratory.

5.2 Disinfectants for decontamination of packaging, instruments and surfaces of certain samples

5.2.1 Ethanol 70 % volume fraction.

5.2.2 Alcohol wipes.

5.3 Neutralizers for disinfectant residues

5.3.1 General. An appropriate neutralizer for all situations cannot be prescribed as each disinfectant is optimally neutralized by a specific chemical substance (see Table 1). However, if the use of disinfectant is suspected, but its composition is unknown, a neutralizer for general use (5.3.2) can be used.

Table 1 — Neutralizing agent components and neutralized constituents

Neutralizing agent components	Neutralized constituents
Soya lecithin	Quaternary ammonium
Sorbitan monooleate (polysorbate 80)	Ethanol
L-Histidine	Aldehydes
Sodium thiosulfate ($Na_2S_2O_3 \cdot 5H_2O$)	Halogen
	Phenols
Disodium phosphate ($Na_2HPO_4 \cdot 12H_2O$)	Acid or alkaline

5.3.2 Neutralizer for general use.

5.3.2.1 Composition.

Soya lecithin	3,0 g
Sorbitan monooleate (polysorbate 80)	30,0 g
L-Histidine	1,0 g
Sodium thiosulfate ($Na_2S_2O_3 \cdot 5H_2O$)	7,8 g
Disodium phosphate ($Na_2HPO_4 \cdot 12H_2O$)	100,8 g
Water	1 000 ml

5.3.2.2 Preparation. Dissolve the components in the water by heating. Sterilize for 15 min in the autoclave maintained at 121 °C. The prepared medium can be stored at (5°± 3) °C for 3 months in a tightly closed light-proof container.

This neutralizing liquid is normally used at 10 % volume fraction in diluents (5.1).