Loomasööt. Zeralenooli määramine söötades. Kõrgefektiivne vedelikkromatograafiline meetod koos fluorestsentsi määramisega ja puhastamisega immunoafiinsuskolonnis

Animal feeding stuffs - Determination of zearalenone in animal feed - High performance liquid chromatographic method with fluorescence detection and immunoaffinity column clean-up

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15792:2009 sisaldab Euroopa standardi EN 15792:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 15792:2009 consists of the English text of the European standard EN 15792:2009.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.09.2009.	Date of Availability of the European standard is 02.09.2009.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Animal feeding stuffs - Determination of zearalenone in animal feed - High performance liquid chromatographic method with fluorescence detection and immunoaffinity column clean-up

Aliments des animaux - Dosage de la zéaralénone dans les aliments des animaux - Méthode de chromatographie liquide haute performance avec détection par fluorescence et purification sur colonne d'immuno-affinité

Futtermittel - Bestimmung von Zearalenon in Futtermitteln - Hochleistungsflüssigchromatographisches Verfahren mit Fluoreszenznachweis und Reinigung an einer Immunoaffinitätssäule

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

Foreword

This document (EN 15792:2009) 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.

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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1 Scope

This Standard is applicable to the determination of zearalenone in animal feed at concentrations from 30 µg/kg to 3 000 µg/kg.

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 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987)*

3 Principle

Zearalenone is extracted from the commodity using organic solvent. The solvent extract is then diluted with phosphate buffered saline to give an aqueous extract which is applied to an immunoaffinity column containing antibodies specific for zearalenone. The analyte is isolated, purified and concentrated on the column and removed from the antibodies with elution solvent. Zearalenone is quantitatively determined by high performance liquid chromatography (HPLC) with fluorescence detection.

4 Reagents

During the analysis, unless otherwise stated, use only reagents of recognised analytical grade and only distilled water or water of grade 1 as defined in EN ISO 3696. Solvents shall be of quality for HPLC analysis.

4.1 Acetonitrile

WARNING — Acetonitrile is hazardous and handling shall be carried out inside a fume cupboard. Appropriate safety equipment (lab coat, goggles, gloves) shall be worn.

4.2 **Methanol,** technical grade

WARNING — Methanol is hazardous and handling shall be carried out inside a fume cupboard. Appropriate safety equipment (lab coat, goggles, gloves) shall be worn. Samples shall be blended using an explosion proof blender.

4.3 **Methanol**, HPLC grade

WARNING — Methanol is hazardous and handling shall be carried out inside a fume cupboard. Appropriate safety equipment (lab coat, goggles, gloves) shall be worn. Samples shall be blended using an explosion proof blender.

4.4 Sodium chloride

4.5 Disodium hydrogen orthophosphate

4.6 Potassium dihydrogen phosphate