INTERNATIONAL STANDARD

ISO 17372

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Animal feeding stuffs — Determination of zearalenone by immunoaffinity column chromatography and high performance liquid chromatography

Aliments des animaux — Dosage de la zéaralénone par chromatographie à colonne à immunoaffinité et par chromatographie liquide haute performance

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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

ISO 17372 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 10, *Animal feeding stuffs*.

Animal feeding stuffs — Determination of zearalenone by immunoaffinity column chromatography and high performance liquid chromatography

1 Scope

This International Standard is applicable to the analysis of zearalenone in animal feed and feed ingredients, including barley, corn, oats, rye, wheat, soybean meal, canola (rapeseed) meal, corn gluten, dried distillers' grains, lentils, and sugar beet pulp. The limit of quantification is 0,05 mg/kg (50 µg/kg). A lower limit of quantification may be achievable subject to appropriate validation being conducted by the user laboratory.

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 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 648, *Laboratory glassware — Single volume pipettes*

ISO 1042, *Laboratory glassware — One-mark volumetric flasks*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 4788, *Laboratory glassware — Graduated measuring cylinders*

ISO 6498, *Animal feeding stuffs — Preparation of test samples*

3 Principle

Samples are extracted with diluted acetonitrile and clarified by filtration. Then an aliquot of the filtrate is diluted with water or phosphate-buffered saline (PBS) and purified using immunoaffinity column (IAC) chromatography. The purified extracts are analysed by reverse-phase high performance liquid chromatography (HPLC) with fluorescence detection. Suspect positive samples can be confirmed by wavelength ratioing, by using normal phase HPLC analysis, or by using diode-array detection.