

Animal feeding stuffs - Determination of phytase activity (ISO 30024:2024)

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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ICS 65.120

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EUROPEAN STANDARD

EN ISO 30024

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Animal feeding stuffs - Determination of phytase activity (ISO 30024:2024)

Alimentation animale - Détermination de l'activité
phytasique (ISO 30024:2024)

Futtermittel - Bestimmung der Phytaseaktivität (ISO
30024:2024)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN ISO 30024:2024) has been prepared by Technical Committee ISO/TC 34 "Food products" in collaboration with Technical Committee CEN/TC 327 "Animal feeding stuffs - Methods of sampling and analysis" 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of an identical text or by endorsement, at the latest by November 2024, and conflicting national standards shall be withdrawn at the latest by November 2024.

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

This document supersedes EN ISO 30024:2009.

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Endorsement notice

The text of ISO 30024:2024 has been approved by CEN as EN ISO 30024:2024 without any modification.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 10, *Animal feeding stuffs*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 327, *Animal feeding stuffs - Methods of sampling and analysis*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 30024:2009), which has been technically revised.

The main changes are as follows:

- the scope has been extended to include complementary compound feeds, mineral feeds, premixtures and feed additives;
- phytic acid (phytate substrate) specifications have been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document quantifies phytase products in feeding stuff samples to control the phytase content of animal feed products. However, the method cannot be used to evaluate the *in vivo* efficacy of the phytase products.

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Animal feeding stuffs — Determination of phytase activity

1 Scope

This document specifies the determination of phytase activity in feeding stuff samples, including feed raw materials from plant origin, compound feeds (complete, complementary, mineral feeds), premixtures and feed additives.

The method is applicable to, and is collaboratively validated for, the determination of phytase activity in complete feed, complementary feed including mineral feed, premixtures and feed additives.

The method does not distinguish between phytase added as a feed additive and endogenous phytase already present in the feed materials. Therefore, the method is also applicable for feed materials from plant origin.

The method does not apply to evaluating or comparing the *in vivo* efficacy of the phytase product. It is not a predictive method of the *in vivo* efficacy of phytases present on the market as they can develop different *in vivo* efficacy per unit of activity.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

phytase unit

U

amount of enzyme that releases 1 μmol of inorganic phosphate from phytate per minute in acetate buffer at pH 5,5 and 37 °C

Note 1 to entry: This is determined by the reaction conditions specified in this document.

3.2

premixture

premix

uniform mixture of one or more micro-ingredients/*feed additives* (3.4) with a diluent and/or carrier, and that is not intended for direct feeding to animals

Note 1 to entry: Premixtures are used to facilitate the uniform dispersion of the micro-ingredients/additives in a larger mix.

[SOURCE: ISO 20588:2019, 3.2.39]