### Cereals and pulses - Determination of the nitrogen content and calculation of the crude protein content - Kjeldahl method

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#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO
20483:2006 sisaldab Euroopa standardi
EN ISO 20483:2006 ingliskeelset teksti.

This Estonian standard EVS-EN ISO 20483:2006 consists of the English text of the European standard EN ISO 20483:2006.

Käesolev dokument on jõustatud 21.12.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

This document is endorsed on 21.12.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.

Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This International Standard specifies a method for the determination of the nitrogen content of cereals, pulses and derived products, according to the Kjeldahl method, and a method for calculating the crude protein content.

#### Scope:

This International Standard specifies a method for the determination of the nitrogen content of cereals, pulses and derived products, according to the Kjeldahl method, and a method for calculating the crude protein content.

**ICS** 67.060

Võtmesõnad:

### EUROPEAN STANDARD NORME EUROPÉENNE

#### **EN ISO 20483**

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ICS 67,060

#### **English Version**

# Cereals and pulses - Determination of the nitrogen content and calculation of the crude protein content - Kjeldahl method (ISO 20483:2006)

Céréales et légumineuses - Détermination de la teneur en azote et calcul de la teneur en protéines brutes - Méthode de Kjeldahl (ISO 20483:2006)

Getreide und Hülsenfrüchte - Bestimmung des Stickstoffgehalts und Berechnung des Rohproteingehalts -Kjeldahl-Verfahren (ISO 20483:2006)

This European Standard was approved by CEN on 28 October 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

#### **Foreword**

This document (EN ISO 20483:2006) has been prepared by Technical Committee ISO/TC 34 "Agricultural food products" in collaboration with Technical Committee CEN/TC 338 "Cereal and cereal products", the secretariat of which is held by AFNOR.

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 May 2007, and conflicting national standards shall be withdrawn at the latest by May 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

### Endorsement notice

Approve the state of the state The text of ISO 20483:2006 has been approved by CEN as EN ISO 20483:2006 without any modifications.

### INTERNATIONAL **STANDARD**

ISO 20483

> First edition 2006-11-01

### Cereals and pulses — Determination of the nitrogen content and calculation of the crude protein content — Kjeldahl method

s et le la te. Céréales et légumineuses — Détermination de la teneur en azote et calcul de la teneur en protéines brutes — Méthode de Kjeldahl



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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.

SO/I ISO 20483 was prepared by Technical Committee ISO/TC 34, Food products, Subcommittee SC 4, Cereals and pulses.

## Cereals and pulses — Determination of the nitrogen content and calculation of the crude protein content — Kjeldahl method

WARNING — The use of this standard may involve hazardous materials, operations and equipment. This standard does not purport to address all the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety practices and determine the applicability of regulatory limitations prior to use.

#### 1 Scope

This International Standard specifies a method for the determination of the nitrogen content of cereals, pulses and derived products, according to the Kjeldahl method, and a method for calculating the crude protein content.

The method does not distinguish between protein nitrogen and non-protein nitrogen. If it is important to determine the non-protein nitrogen content, an appropriate method can be applied.

NOTE In certain cases, full recovery of the nitrogen in nitrates and nitrites is not possible by this method.

#### 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 712, Cereals and cereal products — Determination of moisture content — Routine reference method

ISO 6540, Maize — Determination of moisture content (on milled grains and on whole grains)

#### 3 Terms and definitions

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

#### 3.1

#### nitrogen content

quantity of nitrogen determined after application of the procedure described in this International Standard

NOTE It is expressed as mass fraction of dry product, in percent.

#### 3.2

#### crude protein content

quantity of crude protein obtained from the nitrogen content as determined by applying the method described in this document, calculated by multiplying this content by an appropriate factor depending on the type of cereal or pulse

NOTE It is expressed as mass fraction of dry product, in percent.