TERAVILI JA KAUNVILI
1000 tera massi määramine

Cereals and pulses
Determination of the mass of 1000 grains

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

Käesolev Eesti standard EVS-ISO 520:1996 “Teravili ja kaunvili. 1000 tera massi määramine” sisaldab rahvusvahelise standardi ISO 520:1977 “Cereals and pulses - Determination of the mass of 1000 grains” identset ingliskeelset teksti.

Standardi avaldamise korraldas Eesti Standardikeskus.

Standard EVS-ISO 520:1996 on kinnitatud Eesti Standardikeskuse 07.06.1996 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teataja 1996. aasta juulikuu numbris.

Standard on kättesaadav Eesti Standardikeskusest.

NATIONAL FOREWORD

This Estonian Standard EVS-ISO 520:1996 consists of the identical English text of the International Standard ISO 520:1977 “Cereals and pulses - Determination of the mass of 1000 grains”.

Estonian standard is published by the Estonian Centre for Standardisation.

This standard is ratified with the order of Estonian Centre for Standardisation dated 07.06.1996 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

The standard is available from Estonian Centre for Standardisation.

Käsitlusala

Standard käsitleb teravilja ja kaunvilja 1000 tera massi määramise meetodit.

ICS 67.060 Teravili, kaunvili ja nendest valmistatud tooted

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 520 was developed by Technical Committee ISO/TC 34, *Agricultural food products*.

It was submitted directly to the ISO Council, in accordance with clause 6.12.1 of the Directives for the technical work of ISO. It cancels and replaces ISO Recommendation R 520-1966, which had been approved by the member bodies of the following countries :

Australia	Hungary	Romania
Canada	India	Spain
Chile	Israel	Switzerland
Czechoslovakia	Korea, Rep. of	Turkey
Egypt, Arab Rep. of	Netherlands	United Kingdom
France	New Zealand	U.S.S.R.
Germany	Poland	
Greece	Portugal	

No member body had expressed disapproval of the document.

Printed in Switzerland

Cereals and pulses — Determination of the mass of 1 000 grains

1 SCOPE

This International Standard specifies a method for the determination of the mass of 1 000 grains of cereals and pulses.

2 FIELD OF APPLICATION

This International Standard is applicable to all cereals and pulses with the exception of seed lots for sowing purposes.

3 REFERENCE

ISO/R 712, *Cereals and cereal products — Determination of moisture content (Routine method).*

4 DEFINITIONS

4.1 mass of 1 000 grains as received : The mass of 1 000 grains including the moisture content at the time of the determination.

4.2 mass of 1 000 grains on the dry basis : The mass of 1 000 grains corrected for the moisture content at the time of the determination.

5 PRINCIPLE

Weighing a quantity of the sample, separation of the whole grains and weighing the residue, followed by counting of the whole grains. Division of the mass of the whole grains by their number, and expression of the result in relation to 1 000 grains.

6 APPARATUS

6.1 Dividing apparatus (if necessary).

6.2 Appropriate apparatus for counting grains (for example a photoelectric counter). If suitable apparatus is not available, counting may be carried out by hand.

6.3 Balance, accurate to 0,01 g.

7 PROCEDURE

7.1 Determination of the mass of 1 000 grains as received

Take at random an amount approximating to the mass of 500 grains from the sample as received and weigh to the nearest 0,01 g. Select the whole grains, weigh the residue to the nearest 0,01 g, and calculate by difference the mass of the whole grains; then count the latter.

Carry out tests in duplicate.

7.2 Determination of the mass of 1 000 grains on the dry basis

If the mass of 1 000 grains is to be referred to the dry basis, determine the moisture content of the whole grains free of impurities in a separate sample, in accordance with the routine method specified in ISO/R 712. This method, however, may be applied only to cereals. In the case of pulses, a method of drying at a temperature not higher than 105 °C shall be used.

8 EXPRESSION OF RESULTS

8.1 Method of calculation and formulae

8.1.1 The mass m_H of 1 000 grains as received is given by the formula

$$m_H = \frac{m_o \times 1\,000}{N}$$

where

m_o is the mass, in grams, of the whole grains;

N is the number of whole grains in the mass m_o.