INTERNATIONAL STANDARD

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Oilseeds — Reduction of laboratory sample to test sample

Graines oléagineuses — Réduction de l'échantillon pour laboratoire en échantillon pour essai

Reference number
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Foreword

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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 664 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 2, *Oleaginous seeds and fruits and oilseed meals*.

This third edition cancels and replaces the second edition (ISO 664:1990), which has been technically revised.

Oilseeds — Reduction of laboratory sample to test sample

1 Scope

This International Standard specifies the procedure for obtaining a test sample from a laboratory sample of oilseeds.

NOTE Some contracts for the trading of oilseeds call for analyses of the sample as drawn, i.e. including any impurities that may be present. However, some contracts call for the preliminary quantitative separation of impurities and analysis of the pure seed separated. Analysis of the impurities can also be required.

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 658, *Oilseeds — Determination of content of impurities*

3 Principle

After the separation of impurities of large size, if necessary, the laboratory sample is divided by appropriate means to obtain a test sample representative of the laboratory sample.

4 Apparatus

Usual laboratory apparatus and in particular, the following.

4.1 Dividing apparatus, e.g. quartering apparatus, conical divider, multiple-slot divider with distribution system, or other dividing and sorting apparatus which will ensure uniform distribution of the components of the laboratory sample in the test sample.

4.2 Sample container, that can be hermetically closed, of dimensions such that it can just accommodate the test sample.

5 Procedure

5.1 On receipt of the laboratory sample, check and record the conditions of the seals and the container. Store the laboratory sample in a secure place away from heat and extremes of humidity until the test sample is to be prepared.

5.2 Open the laboratory sample carefully and, without delay, carry out the following procedure.

First, weigh the laboratory sample and, if necessary, separate and weigh impurities of large size, i.e. those that cannot be mixed in to provide a homogeneous sample. Mix the remaining sample carefully in order to make it as uniform as possible and then, using a dividing apparatus (4.1) appropriate to the nature of the seed, reduce it successively until the minimum mass specified in Table 1 has been obtained.

For seeds not included in Table 1, the minimum mass of seeds to be obtained shall be the same as that prescribed for species of similar size.

If analysis of a sample free from impurities is required, follow the procedure specified in ISO 658.

The separation of impurities before homogenization and division shall be taken into account in the expression of results.

5.3 Place the resulting test sample in a dry, clean, container (4.2), close it hermetically and label it.

6 Storage of the test sample

Store the test sample in a secure place away from heat and extremes of humidity.

The analyses shall be carried out within time intervals compatible with the sample stability.

Table 1 — Minimum mass of the test sample

Seed	Botanical name [a]	Minimum mass of the test sample g					
		Moisture content	Impurities content	Oil content	Oil and acidity contents	Other analysis	Oil and water by NMR
Large seeds and fragments							
Copra (kernels)	*Cocos nucifera* Linnaeus	250	1 000	500	1 000	500	500
Shea nut	*Butyrospermum paradoxum* (C.F. Gaertner) Hepper						
Cotton (seeds)	*Gossypium spp.*						
Oil palm kernels	*Elaeis guineensis* N.J. Jacquin						
Medium-size seeds							
Castor (seeds)	*Ricinus communis* Linnaeus	50	300	150	300	250	200
Groundnut	*Arachis hypogaea* Linnaeus						
Pumpkin (seeds)	*Cucurbita maxima* Duchesne						
Sunflower (seeds)	*Helianthus annuus* Linnaeus						
Soya bean	*Glycine max* (Linnaeus) Merrill						
Safflower (seeds)	*Carthamus tinctorius* Linnaeus						
Small seeds							
Gold of pleasure (seeds)	*Camelina sativa* (Linnaeus) Crantz	20	200	100	200	100	200
Hemp (seeds)	*Cannabis sativa* Linnaeus						
Linseed or solin	*Linum usitatissimum* Linnaeus						
Rape (seeds) or canola	*Brassica napus* Linnaeus						
Turnip rape (seeds)	*Brassica rapa* Linnaeus						
Poppy (seeds)	*Papaver somniferum* Linnaeus						
White mustard (seeds)	*Sinapis alba* Linnaeus						
Black mustard (seeds)	*Brassica nigra* (Linnaeus) W.D.J. Koch						
Brown mustard or Indian mustard (seeds)	*Brassica juncea* (Linnaeus) Czern. et Coss.						
Sesame (seeds)	*Sesamum indicum* Linnaeus						

[a] In accordance with ISO 5507[1] and Reference [2].

Bibliography

[1] ISO 5507, *Oilseeds*, *vegetable oils and fats — Nomenclature*

[2] ISTA NOMENCLATURE COMMITTEE. *List of stabilized plant names*, 5th edition. International Seed Testing Association, Bassersdorf, 2007. 73 pp. Available (2008-05-06) at: http://www.seedtest.org/upload/prj/product/ISTA_List_of_Stabilized_Plant_Names_Ed_5.pdf

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