INTERNATIONAL STANDARD

ISO 23394

First edition
2006-09-01

Dried oleaster — Specification and test methods

Oléastre séché — Spécifications et méthodes d'essai

Reference number
ISO 23394:2006(E)

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

Published in Switzerland

Contents

Page

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 23394 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 14, *Fresh, dry and dried fruits and vegetables*.

Dried oleaster — Specification and test methods

1 Scope

This International Standard specifies requirements and test methods for dried oleaster obtained from the fruits of the tree *Eleagnus angustifolia* L. destined for human consumption.

2 Terms and definitions

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

2.1
oleaster
fruit of the tree *Eleagnus angustifolia* L.

2.2
pest-infested oleaster
dried oleaster damaged by insect and/or mite infestation

2.3
spoiled oleaster
dried oleaster damaged by bruises, or darkened in colour, or showing the presence of mushy tissue, visible decomposition caused by bacteria, fungi, visible mould hyphae or any other indications of disease

2.4
immature oleaster
dried oleaster obtained from an unripe oleaster, having poor flavour, hard tissue and undesirable appearance

2.5
gritty
distinct particles in the fruit flesh

2.6
stem or seeds
piece of dried oleaster with stem and/or seeds attached

2.7
fermented oleaster
piece of dried oleaster damaged by fermentation to the extent that the characteristic appearance and/or flavour is substantially affected

2.8
extraneous matter
dirt, pieces of skin, calyx, leaf, peduncle, twigs, bits of wood, soil or any other foreign matter among or on the dried oleaster

2.9
mineral impurities
acid-insoluble ash content

2.10
moisture content
loss in mass determined under the operating conditions specified in Annex B

3 Requirements

3.1 Description

Dried oleasters are the sun-dried or artificially dried fruits of *Eleagnus angustifolia* L. prepared from sufficiently ripe fruits. The stems shall be pulled or cut off and the calyx ends removed. The fruits shall be sound and clean.

3.2 Classification

Dried oleaster shall be classified on the basis of colour and the presence of defects, extraneous matter and broken pieces, as specified in Table 1. They may also be separated into sizes.

3.3 Odour and taste

Dried oleaster shall have an odour and taste characteristic of the variety. They shall be free from foreign odour and odour traces coming from abnormal fermented oleaster.

3.4 Freedom from insects, moulds, etc.

Dried oleaster shall be free from living insects, mites or other parasites and moulds, and shall be practically free from dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision). When such magnification exceeds ×10, this fact shall be stated in the test report.

4 Classification

4.1 General

Dried oleasters are classified into three classes defined in 4.2 to 4.4.

4.2 Extra class

Dried oleasters in this class shall be of superior quality. They shall be characteristic of the variety and/or commercial type. They shall be practically free from defects, provided that these do not affect the general appearance of the product, the quality, or its presentation in the package. Dried oleaster in this class shall not exceed the allowable percentages for the various defects given in Table 1.

4.3 Class I

Dried oleasters in this class shall be of good quality. They shall be characteristic of the variety and/or commercial type.

The following slight defects are allowed, provided that the dried oleasters retain their essential characteristics as regards general appearance, quality and presentation: skin defect, coloration defects.

4.4 Class II

This class includes dried oleasters which do not qualify for inclusion in the higher classes but which satisfy the requirements specified in Table 1.

The following defects are allowed, provided that the dried oleasters retain their essential characteristics as regards general appearance, quality and presentation: skin defect, coloration defects.

4.5 Sizing

Sizing is determined by the diameter of the widest part. The following minimum diameter is required for each class:

— Extra > 12 mm;

— Class I 10 mm to 12 mm;

— Class II > 10 mm.

The difference between the longest and smallest fruit in any package shall not be greater than 4 mm.

Sizing is therefore compulsory for the Extra class and Class I, but is not required for Class II dried oleaster.

4.6 Tolerances

Subject to agreement between the interested parties, tolerances with respect to characteristics and size may be allowed in each package (or in each lot for product transported in bulk) for product not satisfying the requirements of the class indicated.

5 Sampling

It is important that the laboratory receive a sample which is truly representative and has not been damaged or changed during transport or storage.

Methods of sampling dry and dried fruits and vegetable products will form the subject of a future International Standard.

6 Test methods

Samples of dried oleaster shall be tested for conformity of the product to the requirements of Table 1 by the test method specified in Annex A.

The moisture content (2.10) shall be determined in accordance with Annex B.

7 Packing and marking

7.1 Packing

Dried oleasters shall be packed in clean, sound and dry containers made of materials which do not affect the product. If wooden boxes are used, they shall be lined with a suitable paper.

For direct consumption, small consumer packages may be used. The quantities packed in such packages are usually 0,5 kg, 1,0 kg or 2,5 kg net mass but, if required, other quantities may be used. A suitable number of such small packages shall be placed in large wooden or cardboard cases.

The size of the packages and the number of small packages packed in a case shall be subject to agreement between the purchaser and vendor. However, the mass of the large containers or cases shall not be more than 25 kg.

7.2 Marking

The container and case shall be marked or labelled with the following particulars:

a) the name of the product or variety, and the trademark or brand name, if any;

b) the name and address of the producer or packer;

c) the code or batch number;

d) the net mass, or gross mass (according to the request of the purchaser);

e) the class of product;

f) the producing country;

g) the expiry date;

h) any other marking required by the purchaser, such as year of harvest and date of packing (if known);

i) a reference to this International Standard (optional).

8 Contaminants

The contents of contaminants (heavy metals, pesticide residues, mycotoxins, etc.) of the dried oleaster shall not exceed the maximum limits established by the Codex Alimentarius Commission for this commodity and/or shall comply with relevant food safety legislation in force in the target country:

— iron 15,0 mg/kg max.;

— copper 5,0 mg/kg max.;

— arsenic 0,2 mg/kg max.;

— lead 0,2 mg/kg max.;

— zinc 5,0 mg/kg max.

9 Hygienic requirements

9.1 It is recommended that the dried oleaster be prepared in accordance with the appropriate sections of the Recommended International Code of Practice — General Principles of Food Hygiene [1] and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to the product.

9.2 The product

a) shall be free from microorganisms in amounts which may represent a hazard to health,

b) shall be free from parasites which may represent a hazard to health, such as

1) total mesophilic aerobic bacteria 1×10^4 cfu/g max.,

2) *Escherichia coli* 0 cfu/g max.,

3) mould-yeast 1×10^3 cfu/g max.,

4) *Salmonella* 0 cfu per 25 g max.,

5) *Staphylococcus aureus* 0 cfu/g max.

Table 1 — Requirements for dried oleaster in different classes

	Extra class	Class I	Class II
Pest-infested oleaster, mass fraction, % (max.)	1	2	3
Spoiled oleaster, mass fraction, % (max.)	1	2	3
Immature oleaster, mass fraction, % (max.)	1	2	3
Extraneous matter, mass fraction, % (max.)	1,0	1,5	2,0
Mineral impurities, mass fraction, % (max.)	0,1	0,1	0,1
Moisture content mass fraction, % (max.)	7,0	7,0	7,0
Colour	light and cream with reddish	light and cream with reddish	light reddish inside brown
Deviations from the main colour, mass fraction, % (max.)	2	5	5
Gritty, mass fraction, % (max.)	1	2	3
Proportion of non-whole oleaster, max. number in 100 pieces (%)	0	5	10
Proportion of stem or seeds max. number in 100 pieces (%)	2	4	5
Fermented oleaster, mass fraction, % (max.)	0,5	1,0	1,5

Annex A
(normative)

Determination of the content of pest-infested and spoiled oleaster, immature fruits, extraneous matter and deviations from the main colour

A.1 Principle

A test portion of dried oleaster is visually inspected by physically separating the damaged pieces, immature fruits and extraneous matter from the sound, healthy and ripe pieces of the sample.

A.2 Apparatus

A.2.1 Tweezer.

A.2.2 Analytical balance, capable of weighing to the nearest 0,01 g.

A.3 Procedure

Weigh, to the nearest 0,02 g, a test portion of about 500 g. Separate carefully, by hand or using tweezers, the pest-infested and spoiled dried oleaster, immature fruits, extraneous matter and the dried oleaster which shows deviations from the main colour.

Weigh, to the nearest 0,02 g, each of the categories separately.

A.4 Expression of results

The proportion, p, expressed as a percentage by mass, of each category separately is equal to

$$p = \frac{m_1}{m_0} \times 100\ \%$$

where

m_0 is the mass, in grams, of the test portion;

m_1 is the mass, in grams, of the relevant category (see A.3).

A.5 Test report

The test report shall specify:

a) all information necessary for the complete identification of the sample;

b) the sampling method used, if known;

c) the test method used, with reference to this International Standard;

d) all operating details not specified in this International Standard, or regarded as optional, together with details of any incidents which may have influenced the test result(s),

e) the test result(s) obtained, or, if the repeatability has been checked, the final quoted result obtained.

Annex B
(normative)

Determination of moisture content of dried oleaster

B.1 Principle

Heating and drying of a test portion of dried oleaster at a temperature of 70 °C ± 1 °C under a pressure not exceeding 13 kPa (100 mmHg).

B.2 Materials

Use only materials of recognized analytical grade and distilled or demineralized water or water of equivalent purity.

B.2.1 Sand.

B.3 Apparatus

Usual laboratory equipment and, in particular, the following.

B.3.1 Electric oven, capable of being maintained at 70 °C ± 1 °C at a pressure of 13 kPa (100 mmHg).

B.3.2 Dish, of corrosion-resistant metal, of diameter about 8,5 cm, with tight-fitting lid.

B.3.3 Fruit chopper, made of a material which does not absorb moisture (like stainless steel).

B.3.4 Desiccator, containing an effective desiccant.

B.3.5 Steam bath.

B.3.6 Analytical balance, capable of weighing to the nearest 0,01 g.

B.4 Preparation of test sample

Take approximately 50 g dried oleaster and remove the stone and pass it through the fruit chopper (B.3.3) three times, mixing thoroughly after each grinding. Keep it in a completely filled, airtight, closed container to prevent absorption of water.

B.5 Procedure

B.5.1 Preparation of dish and lid

Add about 2 g of the sand (B.2.1) to the dish (B.3.2) and dry, with the lid, for 2 h in the oven (B.3.1) set at 70 °C. Leave it to cool to room temperature in the desiccator (B.3.4) and weigh the sample to the nearest 0,01 g. Repeat the same drying procedure until a constant mass is achieved.