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Priests (caper) (*Capparis* spp.) — Specification and test methods

*Câpriers (*Capparis *spp.) — Spécifications et méthodes d'essai*

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Foreword

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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 documents 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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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 3, *Fruits and vegetables and their derived products*.

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

Unique, piquant-flavoured capers are the flowering buds of the low-growing caper shrub. The buds are one of the most desired ingredients in kitchens all around the Mediterranean basin. The buds botanically belong to the family of Capparaceae, in the genus Capparis. Scientific name: *Capparis spinosa.*

The plant is a spiny, trailing, deciduous shrub native to the Mediterranean. It prefers a warm, humid climate and grows in abundance all over Cyprus, Italy, Greece, North Africa and some Asia Minor regions including Turkey. The shrub begins producing flower (caper) buds from the third year of plantation.

In general, the small cream-coloured buds are gathered by handpicking in the early hours of the morning. If left to bloom, the buds unfold into beautiful, whitish-pink, four-sepal flowers with long tassels of purple stamens. Soon after harvesting, the buds are washed and allowed to wilt in the sun for few hours before they are put into jars and covered with salt, vinegar, brine or olive oil.

Priests (caper) (*Capparis* spp.) — Specification and test methods

1 Scope

This document specifies requirements and test methods for priests (caper). It includes requirements for caper buds.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 874, *Fresh fruits and vegetables — Sampling*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

3 Terms and definitions

No terms and definitions are listed in this document.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Description

Capparis ovata Desf. and *Capparis spinosa* L. from the family Capparaceae have a bushy structure and grow in both upright and leaning positions (see Figure 1).

When the plant creates a bud in the spring, this bud is going to be a flower. If the bud is picked before it becomes a flower, it is called a caper bud.

Figure 1 — Capers

5 Classification and requirements

5.1 General

Caper buds shall be divided into classes according to their quality and diameter (see 5.2).

5.2 Classes

Caper buds are divided into six classes:

— Extra class;

— Class I;

— Class II;

— Class III;

— Class IV;

— outside the class.

5.3 Requirements

5.3.1 General requirements

Caper buds shall be:

— clean and free from visible foreign matter;

— matured to meet the market demand, with a natural colour.

Additionally, caper buds shall be free from:

— abnormal external moisture;

— foreign taste and smell;

— rotten and damaged buds.

5.3.2 Class requirements

The diameters for different classes of caper buds are given in Table 1.

Table 1 — Diameter values according to class requirements

Bud diameter (mm)	Extra class	Class I	Class II	Class III	Class IV	Outside the class
	0 to 7,0	7,1 to 8,0	8,1 to 9,0	9,1 to 11,0	11,1 to 13,0	> 13,0

6 Tolerances

6.1 General

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

6.2 Class tolerances

6.2.1 Extra class

Caper buds not meeting the specifications of this class but meeting those of Class I are allowed in up to 5 % in number of each package.

6.2.2 Class I

Caper buds not meeting the specifications of this class but meeting those of Class II are allowed in up to 10 % in number of each package.

6.2.3 Class II

Caper buds not meeting the specifications of this class but meeting those of Class III are allowed in up to 10 % in number of each package.

6.2.4 Class III

Caper buds not meeting the specifications of this class but meeting those of Class IV are allowed in up to 10 % in number of each package.

6.2.5 Class IV

Caper buds not meeting the specifications of this class but meeting the general specifications are allowed in up to 10 % in number of each package.

7 Sampling

Samples are taken from the lot. Caper buds with the same group, class, size, packaging and inspection time are considered as a lot. It is important that the laboratory receives a sample that is truly representative and has not been damaged during storage and transportation.

Sampling shall be done in accordance with ISO 874 and ISO 2859-1.

8 Test methods

8.1 General

The organoleptical and visual inspections, sniffing, tasting, weighing and measuring of the caper buds should be done upon the request of the customer.

If necessary, the analyses given in 8.2 to 8.6 should also be done.

8.2 Determination of titratable acidity

The titratable acidity value of the samples should be determined in accordance with ISO 750.

8.3 Determination of water-insoluble solids

The water-insoluble solids of the samples should be determined in accordance with ISO 751.

8.4 Determination of mineral impurities content

The mineral impurities content of the samples should be determined in accordance with ISO 762.

8.5 Determination of pH

The pH value of the samples should be determined in accordance with ISO 1842.

8.6 Determination of soluble solids content

The soluble solids content of the samples should be determined in accordance with ISO 2173.

9 Packaging and marking

9.1 Packaging

Caper buds shall be packed in such a way as to properly protect the produce. The materials used inside the package shall be clean and of such a quality as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided that the printing or labelling has been done with non-toxic ink or glue.

Packages shall be free of all kinds of foreign matter.

9.2 Marking

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

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 importing country);

e) the class of product;

f) the producing country;

g) the expiry date;

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

i) a reference to this document, i.e. ISO 20982 (optional).

10 Storage and transportation

For the measurement of the physical quantities affecting storage, see ISO 2169.

The optimum temperature for the storage and transport of caper buds is between +10 °C and +15 °C.

Caper buds are highly perishable and therefore they should be stored and transported for the shortest time possible. The quality should be maintained for about 15 days at the optimum temperature of +10 °C to +15 °C and at 80 % to 90 % relative humidity.

During storage and transport, the circulation of air should be ensured so that a constant temperature and relative humidity are maintained.

Caper buds packed in wooden crates or fibreboard boxes may be placed in a precooled cold store in stacks, according to the load-bearing capacity of the containers. Refrigeration of the caper buds should be maintained during transport. For this purpose, ice-refrigerated or mechanically refrigerated railway trucks or refrigerated lorries may be used.

11 Hygiene contaminants and pesticides residues

Caper buds should be prepared in accordance with the appropriate sections of CAC/RCP 1-1969[7].

For contaminants and pesticide residues, it is recommended to refer to CODEX STAN 193-1995[8] and the pesticides residues database[9] as applicable to the product.