
Artichokes — Specification and test methods

Artichauts — Spécifications et méthodes d'essai

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 20980:2020](https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020)

<https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020>



iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO 20980:2020

<https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification and requirements	2
4.1 General.....	2
4.2 Classification.....	2
4.2.1 Types.....	2
4.2.2 Classes.....	2
4.3 Requirements and recommendations.....	2
4.3.1 General.....	2
4.3.2 By class.....	3
5 Tolerances	3
5.1 General.....	3
5.2 Class tolerances.....	4
5.2.1 Extra class.....	4
5.2.2 Class I.....	4
5.2.3 Class II.....	4
6 Sampling	4
7 Test methods	4
7.1 General.....	4
7.2 Determination of titratable acidity.....	4
7.3 Determination of water-insoluble solids.....	4
7.4 Determination of mineral impurities content.....	4
7.5 Determination of pH.....	4
7.6 Determination of soluble solids content.....	4
8 Packaging and marking	5
8.1 Packaging.....	5
8.2 Marking.....	5
9 Storage and transportation	5
10 Hygiene contaminants and pesticides residues	6
Bibliography	7

iTech STANDARD PREVIEW
(standards.itech.ai)

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.

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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*. [ISO 20980:2020](https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-1d3601445/d/iso-20980-2020)

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

Artichoke plants are herbaceous perennial plants, members of the *Asteraceae* family of plants, a group that includes thistles, dandelions and sunflowers. They are short-lived perennials in warmer climates but are normally grown as annuals in cooler regions. Artichokes are usually grown for the edible flower buds, which are harvested before the flowers open. The unopened bud has overlapping rows of spine-tipped green bracts enclosing the actual flower parts. At the base of the bud is the tender, flavourful artichoke “heart,” which is the part that is cooked and eaten.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO 20980:2020](https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020)

<https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

ISO 20980:2020

<https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020>

Artichokes — Specification and test methods

1 Scope

This document specifies requirements and test methods for fresh artichokes, including their hearts and bottoms, of the following groups:

- *cynara cardunculus* Scolymus Group;
- *cynara cardunculus* Cardoon Group, syn. *C. cardunculus* var. *altilis* DC.

It does not apply to processed artichokes.

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 750, *Fruit and vegetable products — Determination of titratable acidity*

ISO 751, *Fruit and vegetable products — Determination of water-insoluble solids*

ISO 762, *Fruit and vegetable products — Determination of mineral impurities content*

ISO 874, *Fresh fruits and vegetables — Sampling*

ISO 1842, *Fruit and vegetable products — Determination of pH*

ISO 2173, *Fruit and vegetable products — Determination of soluble solids — Refractometric method*

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

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

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/>

3.1

artichoke

edible portion of the vegetables included in the *Cynara cardunculus* Scolymus Group and *Cynara cardunculus* Cardoon Group, syn. *C. cardunculus* var. *altilis* DC

3.2

bract

modified or specialized leaf, especially associated with a reproductive structure such as a flower, inflorescence axis or cone scale

3.3

heart

central part of the head of the *artichoke* (3.1) without thorns and devoid of peduncles and outer *bracts* (3.2), leaving only the receptacle and tender inner sepals

3.4

bottom

receptacle of the head of spiny *artichokes* (3.1), completely devoid of *bracts* (3.2) and flowers in formation, remaining only the receptacle

4 Classification and requirements

4.1 General

Artichokes shall be divided into different types according to their botanical structure (see 4.2.1), divided into classes according to their quality characteristics (see 4.2.2) and divided into classes according to their size and characteristics (see 4.3.2).

4.2 Classification

4.2.1 Types

Artichokes are divided based on their botanical structure into:

- globe artichokes, which are rounder in shape;
- elongated artichokes, which are longer.

4.2.2 Classes

ISO 20980:2020
<https://standards.iteh.ai/catalog/standards/sist/dbb34e87-4763-49af-b37a-d43360ac3465/iso-20980-2020>

Based on the quality characteristics of the two types of artichokes, these are divided into four classes as follows:

- Extra class;
- Class I;
- Class II;
- No class.

4.3 Requirements and recommendations

4.3.1 General

The head of the artichoke should not:

- have defects that affect its appearance or texture;
- show loss of humidity in this tissue;
- have a surface that appears dry or discoloured;
- show signs of pest damage or disease.

The development and condition of the artichoke shall allow the following characteristics:

- it shall be durable for handpicking, packaging and transportation;

— it shall be in a favourable condition to meet the market demands when it reaches its destination.

4.3.2 By class

4.3.2.1 Extra class

Artichokes in this class shall be whole and compact. They shall not be dehydrated or show any signs of pest damage or disease. The length of the heart diameter should be between 3,5 cm and 5 cm. The length of the bottom diameter should be between 7 cm to 9 cm.

Artichokes in this class shall be of high quality. The variety and/or commercial type shall have its own unique characteristics. Medium bracts shall be tightly closed and free of defects. Symptoms of becoming fibrous at the receptacle portion shall not have started. The colour should be completely green without being pale.

4.3.2.2 Class I

Class I artichokes have the same characteristics as Extra class artichokes but are larger in size. The length of the heart diameter should be between 5,1 cm and 8 cm. The length of the bottom diameter should be between 9,1 cm and 11 cm.

Artichokes in this class shall be of high quality. They shall have characteristics of the variety and/or commercial type. The middle part of the bract shall be tightly closed. The receptacle portion shall not have become fibrous.

There shall not be any defects except for very slight outer surface defects that do not affect the overall appearance of the product and the presentation of the packaging.

Mild frost damage (cracks), very slight bruising and very mild defects of the product's overall appearance may be present without affecting the quality and presentation in the package.

4.3.2.3 Class II

Class II artichokes may show slight dehydration, with slight pest or disease damage that could compromise the interior head.

Artichokes not included in other classes but fitting the general characteristics are included in this class. Mild deformities, frost defects, mild bruises, slight browning on the surface, becoming fibrous at the receptacle portion and a slight opening at the middle of the bracts are allowed.

4.3.2.4 No class

No class artichokes are those that do not demonstrate any of the features for Extra class, Class I or Class II.

5 Tolerances

5.1 General

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