

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

UNECE STANDARD FFV-48

concerning the marketing and
commercial quality control of

BROCCOLI

2010⁹ EDITION



UNITED NATIONS
New York and Geneva, 2010⁹

NOTE

Working Party on Agricultural Quality Standards

The commercial quality standards developed by the UNECE Working Party on Agricultural Quality Standards help facilitate international trade, encourage high-quality production, improve profitability and protect consumer interests. UNECE standards are used by Governments, producers, traders, importers and exporters, and other international organizations. They cover a wide range of agricultural products, including fresh fruit and vegetables, dry and dried produce, seed potatoes, meat, cut flowers, eggs and egg products.

Any member of the United Nations can participate, on an equal footing, in the activities of the Working Party. For more information on agricultural standards, please visit our website <www.unece.org/trade/agr>.

The present revised Standard for Broccoli is based on document TRADE/WP.7/1999/7/Add.9, reviewed and adopted by the Working Party at its fifty-fifth session.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Secretariat concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Mention of company names or commercial products does not imply endorsement by the United Nations.

All material may be freely quoted or reprinted, but acknowledgement is requested.

Please contact the following address with any comments or enquiries:

Agricultural Standards Unit
Trade and Timber Division
United Nations Economic Commission for Europe
Palais des Nations
Geneva 10, CH-1211, Switzerland
e-mail: agristandards@unece.org

UNECE STANDARD FFV-48
concerning the marketing and commercial quality control of

BROCCOLI (CALABRESE)
~~moving in international trade between and to~~
~~UNECE member countries~~

I. DEFINITION OF PRODUCE

This standard applies to broccoli of varieties (cultivars) grown from *Brassica oleracea* L. *convar. botrytis* (L.) Alef. *var. cymosa* Duch. to be supplied fresh to the consumer, broccoli for industrial processing being excluded.

II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements of broccoli at the export control stage, after preparation and packaging.

However, if applied at stages following export, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity
- <for products graded in classes other than the “Extra” Class,> a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder shall be responsible for observing such conformity.

A. Minimum requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the broccoli must be:

- intact; for the purpose of presentation some sprouts may be removed
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- fresh in appearance
- practically free from pests
- ~~practically~~ free from damage caused by pests affecting the flesh
- free of abnormal external moisture; in the case where crushed ice is used traces of residual water are not considered to constitute abnormal moisture
- free of any foreign smell and/or taste.

The cut of the floral stem must be clean and as square as possible.

Hollow stems are not considered a defect provided the hollow part is sound, fresh and not discoloured.

The development and condition of the broccoli must be such as to enable it:

- to withstand transport and handling, ~~and~~
- to arrive in satisfactory condition at the place of destination.

B. Classification

The broccoli is classified in two classes defined below:

(i) Class I

Broccoli in this class must be of good quality. It must be characteristic of the variety and/or commercial type.

The broccoli must be:

- firm and compact
- tightly-grained
- free of defects such as stains or traces of frost.

The buds must be fully closed.

The floral stem must be sufficiently tender and free of woodiness.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a slight defect in shape
- a slight defect in colouring
- slight skin defects.

Leaves extending above the head may be allowed provided these are, green, sound, fresh and tender.

(ii) Class II

This class includes broccoli ~~which~~ that does not qualify for inclusion in Class I, but satisfies the minimum requirements specified above.

The broccoli ~~may~~ must be:

- slightly loose and less compact
- less tightly-grained.

The buds must be practically closed.

The floral stem must be reasonably tender, and may have a trace of woodiness.

The following defects may be allowed provided the broccoli retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape
- defects in colouring
- slight bruising and injury
- [skin defects](#).

Leaves extending above the head may be allowed provided these are, green, sound fresh and tender.

III. PROVISIONS CONCERNING SIZING

Size is determined either by the diameter of the floral stem at the cut end or by the maximum diameter of the head.

- (i) For broccoli graded by diameter of the floral stem, the minimum diameter shall be 8 mm. The difference between the smallest and the largest floral stem in each package must not exceed 20 mm.
- (ii) For broccoli graded by the diameter of the head, the minimum diameter shall be 6 cm. However for prepacked or bunched broccoli, the minimum diameter shall be 2 cm. The difference between the smallest and the largest head in each package must not exceed
 - 4 cm if the smallest head has a diameter of less than 10 cm
 - 8 cm if the smallest head has a diameter of 10 cm or more.

For all prepacked or bunched produce, uniformity of size is not required.

In any case, the ratio between the diameter of the head and that of the floral stem in each package must not be less than 2:1.

The broccoli must not exceed 20 cm in height.

[The size requirements shall not apply to miniature produce.](#)¹

¹ [Miniature broccoli refers to broccoli, which has been cultivated with the specific aim of obtaining broccoli of a small size. Broccoli which is not fully developed shall be excluded. All other requirements of the standard must be met.](#)

IV. PROVISIONS CONCERNING TOLERANCES

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot/package for produce not satisfying the requirements of the class indicated.

A. Quality tolerances

(i) Class I

A total tolerance of 10 per cent, by number or weight, of broccoli not satisfying the requirements of the class, but meeting those of Class II is allowed, or, exceptionally, coming within the tolerances of that class. Within this tolerance not more than 1 per cent in total may consist of produce satisfying neither the requirements of Class II quality nor the minimum requirements, or of produce affected by decay.

(ii) Class II

A total tolerance of 10 per cent, by number or weight, of broccoli satisfying neither the requirements of the class, nor the minimum requirements is allowed, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

B. Size tolerances

For all classes: a total tolerance 10 per cent, by number or weight, of broccoli not satisfying the requirements as regards sizing is allowed.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package (or lot for produce presented in bulk) must be uniform and contain only broccoli of the same origin, ~~variety or commercial type~~, quality and size (if sized).

Broccoli in Class I must be uniform in colour.

The visible part of the contents of the package must be representative of the entire contents.

Miniature broccoli must be reasonably uniform in size. They may be mixed with other miniature products of a different type and origin.

B. Packaging

The broccoli must be packed in such a way as to protect the produce properly.

Where crushed ice is used, care must be taken to ensure the heads do not lie in melted water.

The materials used inside the package must be ~~new~~, clean and of a quality such as to avoid any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications, is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Packages (or lots for produce presented in bulk) must be free of all foreign matter.

~~C. Presentation~~

~~The broccoli may be presented in the package:~~

~~_____ vertically
_____ horizontally.~~

~~Broccoli presented vertically must be tightly packaged, but the pressure must not be enough to damage the head. If necessary to allow better packaging of the produce, some heads may be presented horizontally.~~

~~Broccoli may be prepacked or bunched.~~

~~Pre-packs or bunches in the same package must be of approximately the same weight.~~

VI. PROVISIONS CONCERNING MARKING

Each package²³ must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

For broccoli transported in bulk (direct loading into a transport vehicle) these particulars must appear on a document accompanying the goods, and attached in a visible position inside the transport vehicle.

A. Identification

~~Packer _____) _____ Name and address or
_____ and/or _____) _____ officially issued or~~

² According to the Geneva Protocol, footnote 2, "Package units of produce prepacked for direct sale to the consumer shall not be subject to these marking provisions but shall conform to the national requirements. However, the markings referred to shall in any event be shown on the transport packaging containing such package units".

³ Package units of produce prepacked for direct sale to the consumer shall not be subject to these marking provisions but shall conform to the national requirements. However, the markings referred to shall in any event be shown on the transport packaging containing such package units.

~~Dispatcher) accepted code mark.~~⁴

Packer and/or dispatcher/shipper:

Name and physical address (e.g. street/city/region/postal code and, if different from the country of origin, the country) or a code mark officially recognized by the national authority⁵..

B. Nature of produce

- "Broccoli", or "Calabrese" if the contents are not visible from the outside.

C. Origin of produce

- Country of origin and, optionally, district where grown, or national, regional or local place name.

D. Commercial specifications

- Class
- Size (if sized) expressed by the minimum and maximum diameter (floral stem in mm; head in cm), optional.
- ~~_____~~ "packed with crushed ice" where appropriate.
- "Miniature broccoli", or other appropriate term for miniature produce. Where several types of miniature produce are mixed in the same package, all products and their respective origins must be mentioned.

E. Official control mark (optional).

Published 1994

~~Last r~~Revised ~~1997, 1998, 1999~~ 20109

The OECD Scheme for the Application of International Standards for Fruit and Vegetables has published an explanatory illustrated brochure on the application of this standard. The publication may be obtained from the OECD bookshop at: www.oecdbookshop.org.

⁴ The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

⁵ The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark, and the code mark should be preceded by the ISO 3166 (alpha) country/area code of the recognizing country, if not the country of origin.