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**Economic Commission for Europe**

Committee on Trade

**Working Party on Agricultural Quality Standards**Specialized Section on Standardization  
of Fresh Fruit and Vegetables**Fifty-eighth session**

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Item 5 of the provisional agenda

**Review of the texts of the standards****aligned with the 2009 Standard Layout****UNECE Standard FFV-10 concerning the  
marketing and commercial quality control  
of carrots****Submitted by the secretariat****I. Definition of produce**

This standard applies to carrots of varieties (cultivars) grown from *Daucus carota* L. to be supplied fresh to the consumer, carrots for industrial processing being excluded.

**II. Provisions concerning quality**

The purpose of the standard is to define the quality requirements of carrots 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 carrots must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, that is to say:
  - practically free of any visible foreign matter, if they are washed
  - practically free of excess dirt and impurities if they are not washed
- practically free from pests
- practically free from damage caused by pests
- firm
- not forked, free of secondary roots
- not woody
- not running to seed
- free of abnormal external moisture i.e. sufficiently dried after washing
- free of any foreign smell and/or taste.

The development and condition of the carrots must be such as to enable them:

- to withstand transportation and handling
- to arrive in satisfactory condition at the place of destination.

## **B. Classification**

Carrots are classified in three classes, as defined below:

### **(i) "Extra" Class**

Carrots in this class must be of superior quality and washed. They must be characteristic of the variety or the varietal type.

The roots must be:

- smooth
- fresh in appearance
- regular in shape
- free of fissures
- free of bruises and cracks
- free of damage due to frost

- free of green or violet/purple tops.

They must be free from defects with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

**(ii) Class I**

Carrots in this class must be of good quality. They must be characteristic of the variety or the varietal type.

The roots must be:

- fresh in appearance.

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
- slight defects in colouring
- slight healed cracks
- slight cracks or fissures due to handling or washing
- green or violet/purple tops up to
  - 1 cm long for roots not exceeding 10 cm in length
  - 2 cm for other roots.

**(iii) Class II**

This class includes carrots that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified above.

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

- defects in shape
- defects in colouring
- healed cracks not reaching the heart
- cracks or fissures due to handling or washing.
- green or violet/purple tops up to
  - 2 cm long for roots not exceeding 10 cm in length
  - 3 cm for other roots.

### **III. Provisions concerning sizing**

Size is determined by the maximum diameter or the weight of the root when without foliage.

The minimum size shall be:

- 10 mm when sizing is by diameter and 8 g when sizing is by weight in the case of early carrots<sup>1</sup> and small-root varieties;
- 20 mm when sizing is by diameter and not less than 50 g when sizing is by weight in the case of main-crop carrots and large-root varieties.

The maximum size shall be:

- 40 mm when sizing is by diameter and 150 g when sizing is by weight in the case of early carrots and small-root varieties
- 45 mm when sizing is by diameter and 200 g when sizing is by weight in the case of main-crop carrots and large-root varieties of the "Extra" Class.

To ensure uniformity in size, the range in size between produce in the same package shall not exceed:

- 20 mm or 150 g for Class "Extra"
- 30 mm or 200 g for Class I.

#### **IV. Provisions concerning tolerances**

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

##### **A. Quality tolerances**

###### **(i) "Extra" Class**

A total tolerance of 5 per cent, by number or weight, of carrots not satisfying the requirements of the class but meeting those of Class I is allowed. Within this tolerance not more than 0.5 per cent in total may consist of produce satisfying the requirements of Class II quality.

In addition, a total tolerance of 5 per cent by weight of carrots having a slight trace of green or violet/purple colouring at the top is allowed.

###### **(ii) Class I**

A total tolerance of 10 per cent, by number or weight, of carrots not satisfying the requirements of the class but meeting those of Class II is allowed. 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. However, broken carrots and/or carrots that have lost their tips are excluded from that tolerance.

In addition, a total tolerance of 10 per cent by weight of broken carrots and/or carrots that have lost their tips is allowed.

###### **(iii) Class II**

A total tolerance of 10 per cent, by number or weight, of carrots satisfying neither the requirements of the class nor the minimum requirements is allowed. Within this tolerance not more than 2 per cent in total may consist of produce affected by decay.

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<sup>1</sup> Roots in which growth has not been arrested.

In addition, a total tolerance of 25 per cent, by number or weight, of broken carrots is allowed.

## **B. Size tolerances**

For all classes: a total tolerance of 10 per cent, by number or weight, of carrots 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 carrots of the same origin, variety or varietal type, quality and size (if sized).

The visible part of the contents of the package (or lot for produce presented in bulk) must be representative of the entire contents.

### **B. Packaging**

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

The materials used inside the package must be clean and of a quality such 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 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.

## **VI. Provisions concerning marking**

Each package<sup>2</sup> must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

For carrots 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 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 authority<sup>3</sup>.

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<sup>2</sup> 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".

**B. Nature of produce**

- If the contents are not visible from the outside:
  - "Bunched carrots" or "carrots"
  - "Early carrots" or "main-crop carrots"

**C. Origin of produce**

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

**D. Commercial specifications**

- Class
- Size expressed in minimum and maximum diameter or weight (optional)
- Number of bunches (in the case of bunched carrots).

**E. Official control mark (optional)**

Adopted 1962

Last revised 2010

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](http://www.oecdbookshop.org).

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<sup>3</sup> 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.