
UNECE STANDARD FFV-18

concerning the marketing and
commercial quality control of

GARLIC

2023 EDITION



UNITED NATIONS
New York and Geneva, 2023

NOTE

Working Party on Agricultural Quality Standards

The commercial quality standards developed by the Working Party on Agricultural Quality Standards of the United Nations Economic Commission for Europe (UNECE) 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 <http://www.unece.org/trade/agr/welcome.html>.

The present revised Standard for Garlic is based on document ECE/CTCS/WP.7/2016/22, reviewed and adopted by the Working Party at its seventy-second session.

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UNECE standard FFV-18 concerning the marketing and commercial quality control of garlic

I. Definition of produce

This standard applies to garlic of varieties (cultivars) grown from *Allium sativum* var. *sativum* L. to be supplied fresh¹, semi-dry² or dry³ to the consumer, green garlic with full leaves and undeveloped cloves and garlic for industrial processing being excluded.

The garlic bulbs may consist of several or only one clove (“solo garlic”).

II. Provisions concerning quality

The purpose of the standard is to define the quality requirements for garlic after preparation and packaging.

However, if applied at stages following export/dispatch, 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/seller 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 bulbs must be:

- intact; covered with outer skin
- 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
- practically free from pests
- practically free from damage caused by pests
- firm
- free of damage caused by frost or sun
- free of externally visible sprouts
- free of abnormal external moisture
- free of any foreign smell and/or taste⁴.

For dry garlic, if trimmed, the stem length should not exceed 3 cm.

¹ "Fresh garlic" means produce with a "fresh" stem and with the outer skin of the bulb still fresh.

² "Semi-dry garlic" means fresh produce with the stem and outer skin of the bulb not completely dry.

³ "Dry garlic" means fresh produce in which the stem, outer skin of the bulb and the skin surround each clove are completely dry.

⁴ This provision does not preclude a specific smell and/or specific taste caused by smoking in countries or regions where smoked garlic is considered as a fresh vegetable.

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

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

B. Classification

Garlic is classified in three classes, as defined below:

(i) "Extra" Class

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

The bulbs must be:

- of regular shape
- properly cleaned.

The cloves must be compact.

The roots must be cut close to the base of the bulb in the case of dry garlic.

Garlic 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

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

The cloves must be reasonably compact.

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:

- slight tears in the outer skin of the bulb
- a slight defect in shape.

(iii) Class II

This class includes garlic that does not qualify for inclusion in the higher classes but satisfies the minimum requirements specified above.

The following defects may be allowed, provided the garlic retains its essential characteristics as regards the quality, the keeping quality and presentation:

- tears in the outer skin or missing parts of the outer skin of the bulb
- staining on the outer skins of the bulb provided it does not cover more than half the bulb surface
- healed injuries
- slight bruises
- irregular shape
- no more than three cloves, or one fifth of the total number of cloves in a bulb (whichever is lower) may be missing

III. Provisions concerning sizing

Size is determined by the maximum diameter of the equatorial section.

The minimum diameter shall be:

- 45 mm for "Extra" Class
- 30 mm for Classes I and II.

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

- 15 mm when the smallest bulb has a diameter of less than 40 mm
- 20 mm when the smallest bulb has a diameter equal to or more than 40 mm.

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.⁵

A. Quality tolerances

(i) "Extra" Class

A total tolerance of 5 per cent, by number or weight, of garlic 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.

(ii) Class I

A total tolerance of 10 per cent, by number or weight, of garlic 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.

Within this tolerance not more than 1 per cent by weight of bulbs may have cloves with externally visible sprouts.

In addition to this tolerance, not more than 25 per cent, by number or weight, of bulbs showing slight staining on the outer skin of the bulb, provided it does not cover more than a quarter of the bulb surface.

(iii) Class II

A total tolerance of 10 per cent, by number or weight, of garlic 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.

In addition to this tolerance, not more than 5 per cent by weight of bulbs may have cloves with externally visible sprouts.

B. Size tolerances

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

⁵ A conformity check shall be made by assessing primary or composite samples. It is based on the principle of presumption that the quality of the randomly taken samples is representative of the quality of the lot. The OECD Operating Rules for Conformity Checks are recommended for application – also by operators – at the stages of dispatch as well as in wholesale and distribution centres and storerooms of food retail.

V. Provisions concerning presentation

A. Uniformity

The contents of each package must be uniform and contain only garlic of the same origin, variety or commercial type, quality and size.

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

B. Packaging

Garlic must be packed in such a way so 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 paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Packages must be free of all foreign matter.

VI. Provisions concerning marking

Each package⁶ must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside:

A. Identification

Packer and/or dispatcher/exporter:

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 authority⁷ if the country applying such a system is listed in the UNECE Code Mark Registry⁸. In the case where there is no street address available, the physical address can be made up of the name of the farm or facility, the nearest village, town, region, and postal code; or GPS coordinates and a PO Box address together with nearest town, region and country shall be accepted as a physical address.⁹

B. Nature of produce

- "Fresh garlic", "Semi-dry garlic", "Dry garlic" or "Solo garlic" if the contents are not visible from the outside;
- Commercial type ("White garlic", "Pink garlic", etc.);
- "Smoked", where appropriate.

⁶ These marking provisions do not apply to sales packages presented in packages bearing these particulars. However, they do apply to sales packages (pre-packages) presented individually.

⁷ 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-2) country/area code of the recognizing country, if not the country of origin.

⁸ See <http://www.unece.org/trade/agr/codemarkregistry.html>.

⁹ Reservation by the United States of America on the use of a PO Box address, as it may not allow facility inspections or rapid intervention in case of recalls, and is not part of its national labelling requirement related to packer and/or dispatcher/exporter.

C. Origin of produce

- Country of origin¹⁰ and, optionally, district where grown, or national, regional or local place name

D. Commercial specifications

- Class
- Size expressed as minimum and maximum diameters of the bulbs.

E. Official control mark (optional)

Adopted 1966

Last revised 2016

Aligned with the Standard Layout 2023

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.

¹⁰ The full or a commonly used name should be indicated.