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UNECE STANDARD FFV-18

concerning the marketing and
commercial quality control of

GARLIC

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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 Garlic is based on document [TRADE/WP.7/1998/9/Add.4](#), reviewed and adopted by the Working Party at its fifty-fourth session.

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

GARLIC
~~moving in international trade between and to~~
~~UNECE member countries~~

I. DEFINITION OF PRODUCE

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

II. PROVISIONS CONCERNING QUALITY

The purpose of the standard is to define the quality requirements for garlic 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 bulbs must be:

- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, ~~and~~ practically free of any visible foreign matter

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

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

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

- practically free from pests
- ~~practically~~ free from damage caused by pests [affecting the flesh](#)
- 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 taste.⁴

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. [They must be](#) ~~and~~ characteristic of the variety and/or commercial type.⁵

The bulbs must be:

- intact
- 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.](#)

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

~~The cloves must be compact.~~

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

(ii) Class I

Garlic in this class must be of good quality. They must be characteristic of the variety and/or commercial type.⁵

⁴ This provision does not preclude a specific smell and/or specific taste caused by smoking.

⁵ This provision does not preclude different colouring resulting from smoking.

The bulbs must be:

- intact
- of fairly regular shape

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.

~~The cloves must be reasonably compact.~~

(iii) Class II

This class includes garlic ~~that which~~ do not qualify for inclusion in the higher classes but satisfy 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
- healed injuries
- slight bruises
- irregular shape
- up to three cloves missing.

III. PROVISIONS CONCERNING SIZING

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

~~(i)~~ The minimum diameter is fixed at 45 mm for garlic in the "Extra" Class and at 30 mm for garlic in Classes I and II.

~~(ii)~~ ~~In the case of garlic presented loose with cut stems or in bunches, the difference in diameter between the smallest and largest bulb in the same package may~~ 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, ~~t~~olerances in respect of quality and size shall be allowed in each ~~package, or in each~~ lot for produce ~~presented in bulk, 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 bulbs 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 bulbs 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.

(iii) Class II

A total tolerance of 10 per cent, by number or by weight, of bulbs 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 (if sized): a total tolerance of 10 per cent by weight of bulbs not satisfying the requirements as regards sizing and the size indicated, but conforming to the size immediately above and/or below that specified

Within this tolerance, not more than 3 per cent of bulbs may have a diameter smaller than the specified minimum but ~~not less greater~~ the difference should not exceed than 25 mm.

V. PROVISIONS CONCERNING PRESENTATION

A. Uniformity

The contents of each package, (or lot for produce presented in bulk [in the transport vehicle]),

must be uniform and contain only garlic of the same origin, variety or commercial type, quality and size (if sized).

The visible part of the contents of the package, ~~(or lot for produce presented in bulk~~ [\[in the transport vehicle\]](#)~~);~~ must be representative of the entire contents.

B. Packaging

With the exception of dry garlic presented in strings, which may be transported in bulk (loaded directly into a transport vehicle), garlic must be packed in such a way so as to protect the produce properly.

The materials used inside the package must be ~~new,~~ 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, ~~(or lots for produce presented in bulk~~ [\[in the transport vehicle\]](#)~~);~~ must be free of all foreign matter.

~~C. Presentation~~

~~Garlic must be presented as follows:~~

~~———— (i) ——— loose in the package, with cut stems, the length of the stem not to exceed:
———— 10 cm in the case of fresh and semi-dry garlic,
———— 3 cm in the case of dry garlic~~

~~———— (ii) ——— in bunches by:
———— number of bulbs,
———— net weight~~

~~The stems must be evened off.~~

~~———— (iii) ——— in the case of dry and semi-dry garlic only, in strings by:
———— number of bulbs, there being at least six bulbs per string
———— net weight.~~

~~In the case of presentation in bunches or strings, each package must have uniform characteristics (number of bulbs or net weight).~~

~~Irrespective of the type of presentation, the stems must be cut cleanly, as must the roots in the case of dry garlic classified in the "Extra" class.~~

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.

For garlic in strings transported in bulk (~~direct loading directly~~ 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 authority⁷.

B. Nature of produce

- "Fresh garlic", "Semi-dry garlic" or "Dry garlic", when the contents are not visible from the outside
- Name of the variety or commercial type ("White garlic", "Pink garlic", etc.)
- "Smoked", where appropriate.

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 as minimum and maximum diameters of the bulbs.

E. Official control mark (optional)

⁶ 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".

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

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