

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda item 4

CX/FFV 19/21/5

July 2019

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEx COMMITTEE ON FRESH FRUITS AND VEGETABLES

21st Session

DRAFT STANDARD FOR GARLIC

Prepared by the Electronic Working Group chaired by Mexico

Codex members and observers wishing to submit comments at Step 6 on this draft should do so as instructed in CL 2019/62-FFV available on the Codex webpage/Circular letters 2019:

<http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>

BACKGROUND

1. The 20th session of the Codex Committee on Fresh Fruits and Vegetables (CCFFV)¹ held in Kampala, Uganda, 2 – 6 October, 2017, considered the draft standard for garlic and agreed to return the draft Standard to Step 6, for further revision, comments and consideration by the next Session of the Committee. CCFFV20 agreed to established an EWG chaired by Mexico and working in English and Spanish to revise the standard based on the written comments submitted and the discussions in plenary, in particular as to some critical issues identified e.g. inclusion of smoked garlic, sizing, and any other issues that could emerge during the deliberations in the EWG.

MAIN ISSUES DEBATED IN THE EWG

2. The EWG was carried out through the <http://forum.codex-alimentarius.net/> platform. Comments were received during two rounds, from Brazil, Colombia, Ecuador, Iran, Peru and Spain.

THE INCLUSION OF SMOKED GARLIC

3. The EWG focused the discussion on, whether or not smoked garlic should be included in the standard and asked the members supporting the inclusion of smoked garlic to provide evidence referring that in their countries smoked garlic is considered as fresh garlic.

4. Most members agreed it should not be included.

5. It was noticed that smoked garlic is outside the scope of CCFFV, since the garlic that is subjected to a smoking process changes its organoleptic characteristics, especially color and taste; and citing the Manual for the preparation and sale of fruits and vegetables published by FAO, "Freshness is the condition of being fresh or as close to harvest as possible. Freshness is also used to describe vegetables harvested at the point of maximum organoleptic quality characterized by the greatest turgidity, colour, flavor and crispness". "Within the parameters for defining freshness and ripeness, colour, both in its intensity and uniformity, is the external aspect most easily evaluated by the consumer."

6. Some other members justified that the designation of "smoked garlic" is ambiguous due to, under this designation, there is a large number of smoking processes, and while it is true that smoking is a way to increase the life of garlic harvested, it is also a recognized way of conferring additional flavors and smells.

7. A member expressed that smoked garlic is generally processed like smoked fish, as mentioned in *Standard for Smoked Fish, Smoke-Flavoured Fish and Smoke-Dried Fish* (CXS 311-2013). Fish is undergone a hot or cold smoking process. The smoke must be applied through one of the smoking processes and the final produce must have smoked sensory characteristics. So smoked garlic should be considered 'processed'.

8. It was also suggested that smoked garlic be remitted as a new project for the Codex Committee on Processed Fruits and Vegetables (CCPFV) for further discussion, considering that it is a processed product

¹ REP18/FFV para. 27

and is partially cooked, so it should not be considered a fresh product given that smoking practices can alter the taste and / or appearance of the agricultural raw produce.

9. It was noticed by members supporting the smoked garlic inclusion in the standard, the following comments:

10. It is argued that smoked garlic is not a processed produce since the inside remains fresh, the smoking method only dries the outer skin and does not affect the aroma or texture (dryness) of the produce. The provisions "free of any foreign smell and/or taste" are not affected in taste and / or specific smell caused by smoking in those countries or regions where smoked garlic is considered a fresh product. It was emphasized that the above definition does not prejudice any interest of any country. The importance of alignment with the UNECE standard for garlic, considering smoked garlic to avoid duplication of work was stressed out.

11. The EWG agreed not to include smoky garlic in the standard.

SIZING

12. There were no comments from EWG members referring the Provisions Concerning Sizing.

OTHER

13. As agreed at CCFFV20, the project should be in accordance to layout for Codex standards for fresh fruits and vegetables, provision on "Scope" was added.

14. The Definition of Produce of the standard, was re-worded for better understanding taking into account the provisions agreed on CCFFV20 about list of commercial types should be considered into forms of presentation (solo garlic – multiple cloves) and degree of dryness (fresh, semi-, dry garlic) and that the standard should cover garlic (fresh, semi-, dry) with and without the skin to reflect worldwide.

RECOMMENDATION

15. CCFFV is invited to consider draft standard for garlic (Appendix I).

PROPOSED DRAFT CODEX STANDARD FOR GARLIC
(at Step 7)

1. SCOPE

The purpose of the standard is to define the quality requirements for garlic after preparation and packaging. However, if applied at stages following packaging, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- a slight deterioration due to their development and their tendency to perish.

For the purposes of this standard 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.

2. DEFINITION OF PRODUCE

This Standard applies to bulbs of commercial varieties of fresh garlic grown from *Allium sativum L.*, of the *Alliaceae* family, with and without the skin, whereas presented with skin, a certain degree of external dryness can be observed without clove or cloves freshness detriment, to be supplied fresh to the consumer, after packaging and packaging. Fresh garlic constituted of several cloves and the garlic known as garlic Solo, constituted of a single clove are included. Green garlic with full leaves, undeveloped cloves and garlic for industrial processing are excluded.

The following degrees of dryness of outer skin for fresh garlic are covered by the Standard:

- Fresh garlic: produce with a fresh stem, and with the outer skin of the bulb soft and flexible.
- Semi-dry garlic: produce with the stem and with the outer skin of the bulb not completely dry.
- Dry garlic: produce in which the stem, outer skin of the bulb and the skin surround each clove are completely dry.

3. PROVISIONS CONCERNING QUALITY

3.1 MINIMUM REQUIREMENTS

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

- intact; covered with outer skin, where applicable;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- firm;
- clean, practically free of any visible foreign matter;
- practically free of pests² and damage caused by them affecting the general appearance of the produce;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- free of damage caused by low and/or high temperatures;
- free of visible shoots;
- practically free of long root tufts.
- For dry garlic, the roots must be close to the base of the bulb. if presented with cut stems the length should not exceed 3 cm. There shall be no length requirement for stems of braided garlic.

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

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

² The provisions for pests applies without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC).

3.1.1 Minimum maturity requirements

The garlic must have reached an appropriate degree of development in accordance with criteria proper to the variety and/or commercial type and to the area in which they are grown.

3.2 CLASSIFICATION

Garlic is classified into three classes defined below:

3.2.1 "Extra" Class

Garlic in this class must be of superior quality. They must be characteristic of the variety and/or commercial type. They must be free of 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. The bulbs must be of regular shape and [properly cleaned]. The cloves must be compact.

3.2.2 Class I

Garlic in this class must be of good quality. They must be characteristic of the variety and/or commercial type. The cloves must be reasonably compact. However, slight defects 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; and
- a slight defect in shape.

3.2.3 Class II

This class includes garlic, which does not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 3.1 above.

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

- slight tears on the external skin or missing parts of the outer skin of the bulb not exceeding the half of the surface;
- slight staining on the outer skin not exceeding more than half of the bulb surface;
- no more than two damaged cloves;
- healed injuries;
- slight bruises;
- defects in shape;
- no more than three cloves, or one fifth of the total number of cloves in a bulb may be missing, whichever is lower.

4. PROVISIONS CONCERNING SIZING

Garlic may be sized by diameter (minimum diameter or diameter range) or in accordance with existing trading practices. When sized in accordance with existing trade practices, the package must be labelled with the size and method used. The following methods are guides and may be used on an optional basis:

If a size code is used the provisions of the following table must be respected:

Table 1. Sizing specifications	
Size Code	Range of diameter in mm
A	≥75
B	70-74
C	65-69
D	60-64
E	55-59
F	50-54

G	45-49
H	40-44
I	35-39
J	30-34
K	25-29
L	20-24
M	≤19]

5. PROVISIONS CONCERNING TOLERANCES

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

5.1 QUALITY 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. Produce that fail conformity assessment, may be allowed to be resorted and brought into conformity in accordance with the relevant provisions in the *Guidelines for Food Import Control System (CXG 47-2003)*.

5.1.1 Extra" Class

Five percent by number or weight of bulbs not satisfying the requirements of the class, but meeting those of Class I. Within this tolerance not more than 1% in total may consist of produce satisfying the requirements of Class II.

5.1.2 Class I

Ten percent by number or weight of bulbs not satisfying the requirements of the class, but meeting those of Class II. Within this tolerance not more than 1% in total may consist of produce satisfying neither the requirements of Class II nor the minimum requirements, or of produce affected by decay.

In addition, not more than 1% by weight of bulbs may have cloves with externally visible sprouts.

5.1.3 Class II

Ten percent by number or weight of bulbs satisfying neither the requirements of the class nor the minimum requirements. Within this tolerance not more than 2% in total may consist of produce affected by decay.

In addition, not more than 5% by weight of bulbs may have cloves with externally visible sprouts

5.2 SIZE TOLERANCES

For all classes, ten percent by number or weight of bulbs not corresponding to the size indicated on the package

6. PROVISIONS CONCERNING PRESENTATION

6.1 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 or lot for produce presented in bulk must be representative of the entire contents.

6.2 PACKAGING

The garlic must be packed in such a way as to protect the produce properly. The materials used inside the package must be clean and of food grade 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 labeling has been done with non-toxic ink or glue.

The garlic shall be packed in each container in compliance with the *Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CXC 44-1995)*.

6.2.1 Description of Containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the garlic. Packages or lots must be free of all foreign matter and smell.

7. PROVISIONS CONCERNING MARKING OR LABELLING

7.1 CONSUMER PACKAGES

In addition to the requirements of the *General Standard for the Labelling of Prepackaged Foods* (CXS 1-1985), the following specific provisions apply:

7.1.1 Name of Produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce ("garlic" and/or "fresh garlic", "semi-dry garlic", "dry garlic") and the name of the variety.

7.1.2 Origin of Produce

Country of origin³ and, optionally, district where grown, or national, regional or local place name.

7.2 NON-RETAIL CONTAINERS

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment.

For produce transported in bulk, these particulars must appear on a document accompanying the goods, and attached in a visible position inside the transport vehicle, Unless the document is replaced by an electronic solution. In that case the identification must be machine readable and easily accessible.

7.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional).⁴

7.2.2 Name of Produce

Name of the produce if the contents are not visible from the outside, such as "garlic", "fresh garlic", "semi-dry garlic", "dry garlic" or "solo garlic", where appropriate;

Name of the variety or commercial type (optional).

7.2.3 Origin of Produce

Country of origin⁴ and, optionally, district where grown or national, regional or local place name.

7.2.4 Commercial Identification

- class;
- size expressed as minimum and maximum diameters of the bulb or size code;
- net weight (optional).

7.2.5 Official Inspection Mark (optional)

8. CONTAMINANTS

8.1 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission

8.2 The produce covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995).

9. HYGIENE

9.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CXC 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CXC 53-2003), and other relevant Codex texts such as codes of hygienic practice and codes of practice.

9.2 The produce should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CXG 21-1997).

³ The full or a commonly used name should be indicated.

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.

Appendix II

List of Participants

Chaired by México

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