

CODEx ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

Agenda Item 4

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

20th Session

Kampala, Uganda, 2 – 6 October, 2017

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 2017/13-FFV available at the Codex webpage/Circular letters 2017: <http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>. Comments will only be accepted through the online commenting system within the deadline indicated in the CL.

BACKGROUND

1. The 19th Session of the Codex Committee on Fresh Fruits and Vegetables (CCFFV19)¹ held in Ixtapa Zihuatanejo, Guerrero (Mexico) in October 2015 agreed to establish an EWG, led by Mexico, and working in English and Spanish, to continue further work on the draft with the a view to:
 - examine how defects work in practice for this type of commodity;
 - review how best to address smoked garlic;
 - consider other critical points that may come up during circulation for comments at step 6.
2. The 38th Session of the Codex Alimentarius (CAC)² (July 2016) agreed to adopt the standard at Step 5 and noted concerns regarding the inclusion of “smoked” garlic and comments on the need to clarify provisions for commercial types, presentation, sizing and their tolerances.
3. The EWG had the participation of 24 member countries, which are included as Appendix II.

Discussion in the Working Group

4. The comments were reviewed and adjustments were made on the document in relation to the defects chapter, taking into consideration how the defects in international commercial practice are evaluated. It highlights the work of the EWG, in the proposal that is included to settle the controversy over smoked garlic.
5. Taking into consideration the resolutions of the CCFFV19 report, in order to settle this controversy, it was agreed that to write the paragraph that is detailed below, as footnote 1:

¹ This provision does not apply to smoked garlic, and smoked garlic must be labelled accordingly. preclude a specific smell and/or specific taste caused by smoking in countries or regions where smoked garlic is considered as a fresh vegetable. Smoked garlic must be labeled properly.
6. The Chair noted that "completely dehydrated garlic, garlic powder, flakes and garlic products that have been processed differently are the responsibility of other Codex Committees.

¹ REP16/FFV, para 69

² REP16/CAC, paras 86-89

7. The Chair of the EWG took into consideration the technical comments of the participating countries as well as the experience of the domestic industry which ensured that as long as the smoking process does not affect the organoleptic characteristics of the Garlic cloves, the term garlic can be kept in the Codex Standard for Garlic, in the form of a footnote. It is therefore recommended to leave the Modified Foil Note to exempt the "smoked" garlic from the provisions regarding the presence of odor and / or foreign taste.

Recommendation

8. CCFFV is invited to consider Appendix I, the draft Standards for Garlic.

DRAFT STANDARD FOR GARLIC
(For comments at Step 6 through <https://ocs.codexalimentarius.org/>)

1. DEFINITION OF PRODUCE

This Standard applies to bulbs of commercial varieties of garlic grown from *Allium sativum* L., of the *Alliaceae* family, to be supplied fresh with different degrees of dryness of outer skin to the consumer, after preparation and packaging. Green garlic with undeveloped cloves and garlic for industrial processing are excluded.

The following commercial types are covered by the Standard:

- **Fresh garlic:** produce with a fresh stem, soft and flexible outer skin of the bulb;
- **Semi-dry garlic:** fresh produce with the stem and incompletely dry outer skin of the bulb;
- **Dry garlic:** fresh produce in which the stem, outer skin of the bulb and the skin surround each clove are completely dry; and
- **Solo Garlic:** garlic bulbs that consist of only one clove.

2. PROVISIONS CONCERNING QUALITY

2.1 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;
- 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 pests 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 taste¹;
- free of damage caused by low and/or high temperatures;
- free of visible shoots;
- free of long root tufts.

For dry garlic, if presented with cut stems, the length should not exceed 3 cm. There shall be no length requirement for stems of braided garlic.

2.1.1 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.

2.1.2 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.

2.2 CLASSIFICATION

Garlic is classified into three classes defined below:

¹ This provision does not apply to smoked garlic, and smoked garlic must be labelled accordingly. preclude a specific smell and/or specific taste caused by smoking in countries or regions where smoked garlic is considered as a fresh vegetable. Smoked garlic must be labeled properly.

2.2.1 “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 compact.

For dry garlic, the roots must be trimmed close to the base of the bulb.

2.2.2 Class I

Garlic in this class must be of good quality. They must be characteristic of the variety and/or commercial type. The bulbs may be less compact than in extra class. 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.

2.2.3 Class II

This class includes garlic, which does not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 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.

3. 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]

4. 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.

4.1 QUALITY TOLERANCES

4.1.1 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.

4.1.2 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.

4.1.3 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

4.2 SIZE TOLERANCES

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

5. PROVISIONS CONCERNING PRESENTATION

5.1 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.

5.2 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* (CAC/RCP 44-1995).

5.2.1 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.

6. PROVISIONS CONCERNING MARKING OR LABELLING

6.1 CONSUMER PACKAGES

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

6.1.1 Nature 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" or "solo garlic") and the name of the variety.

6.1.2 Origin of Produce

Country of origin² and, optionally, district where grown, or national, regional or local place name.

6.2 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.

6.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional).³

6.2.2 Nature 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).

6.2.3 Origin of Produce

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

6.2.4 Commercial Identification

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

6.2.5 Official Inspection Mark (optional)

7. CONTAMINANTS

- 7.1 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission
- 7.2 The produce covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

8. HYGIENE

- 8.1 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* (CAC/RCP 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CAC/RCP 53-2003), and other relevant Codex texts such as codes of hygienic practice and codes of practice.
- 8.2 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* (CAC/GL 21-1997).

² The full or a commonly used name should be indicated.

³ 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.

LIST OF PARTICIPANTS

Chair by MVZ. Gabriela Alejandra Jiménez Rodríguez

Subdirectora de Normas

gjimenez.dqvdt@sagarpa.gob.mx

IRAN-IRAN

Fariba Bayat

Agricultural Engineering Research Institute (AERI), Agricultural and Natural Resources Research center, Hamedan, Iran
 P.O.Box: 65199-91169-887
 Phone: 98 9183159851
 Fax: 98 811 4373606
 Email: bayat.fariba@gmail.com

LATVIA – LATVIA

Mārīte Gailīte,

Main expert of fruits and vegetables of the Latvian Association of the Gardener, Latvia,
 e-mail: maritegailite@inbox.lv

Edīte Straziņa,

Chair of the Co-operative society “Mūsmāju dārzeni”; the board member of the Farmers Parliament, Latvia, e-mail:
 edite@musmajudarzeni.lv

JAMAICA – JAMAICA

Earle Stewart

Facilitator
 c/o Bureau of Standards Jamaica
 6 Winchester Road
 Kingston 6
 Tel: 618-1534; Ext: 3234
 Fax: 929-4736

Mrs. Juliet Goldsmith

Manager, Pest Risk Analysis Unit
 Email - juliet.goldsmith@gmail.com

JAPÓN – JAPAN

Ms. Asako Kasai

Section Chief
 Horticultural Crop Division, Crop Production Department, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries, JAPAN
 E-mail: asako_kaksai@nm.maff.go.jp,
codex_maff@nm.maff.go.jp

Miho NAKADA(Ms.)

Section Chief
 Horticultural Crop Division
 Agricultural Production Bureau
 Ministry of Agriculture, Forestry and Fisheries of Japan miho_nakada920@maff.go.jp;
 codex_maff@maff.go.jp;
 Ministry of Education, Culture, Sports, Science and Technology
 3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959, JAPAN Telephone: + 81 3 5253- 4111 Fax:
 + 81 3 6734-4010

LUXEMBURGO - LUXEMBOURG

François Kraus

Head of the Horticulture Department - ASTA
 Email address: francois.kraus@asta.etat.lu

MALASIA - MALAYSIA

Khazana Ibrahim

Senior Assistant Director
 Email address: khazana@doa.gov.my

Siti Mariam Abd Ghani

Senior Assistant Director
 Email address: siti_mariam@fama.gov.my
 6 Winchester Road
 Kingston 6
 Tel: 618-1534; Ext: 3234
 Fax: 929-4736

MAURICIO - MAURITIUS

Mrs Nirmala Ramburn,
 Principal Research Scientist
 Email address: nirmalaramburn@gmail.com.

MÉXICO – MEXICO

Ing. Guadalupe Flores Pérez

Director de Agroindustriales
gflores.sa@sagarpa.gob.mx

Ing. María Elena Álvarez Jiménez

Jefe de Departamento de Frutales Tropicales
malvarez.sa@sagarpa.gob.mx
 Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación
 Cuauhtémoc 1230, Col. Santa Cruz Atoyac.
 Delegación Benito Juárez, Ciudad de México
 03310
 +52 3871 1000 ext. 40356, 40231 y 40231

POLONIA – POLAND**Paweł Flakiewicz**

Codex Contact Point for Poland
International Co-operation Department
Agricultural and Food Quality Inspection
E-mail: kodeks@ijhars.gov.pl
T: +48 22 623 27 92
F: +48 22 623 29 97

Aneta Grabowska

PhD
University of Agriculture in Krakow
Email: a.grabowska@ogr.ur.krakow.pl
T: +48 12 662 5216
F: +48 12 662 5303

Elżbieta Jędrzczyk

PhD
University of Agriculture in Krakow
Email: e.jedrzczyk@ogr.ur.krakow.pl
T: +48 12 662 5215
F: +48 12 662 5303

REINO UNIDO – UNITED KINGDOM**Ian Hewett**

Market Measures Trader Manager
External Relations
Rural Payments Agency
Office SCF3
South Core, Produce Hall
Western International Market
Hayes Road Southall
UB2 5XJ United Kingdom
Tel. 0044 208 561 3945 Fax. 0044 208 589 9624
Mob. 0044 7884 234574
E-mail. ian.c.hewett@rpa.gsi.gov.uk

REPUBLICA DE COREA- REPUBLIC OF KOREA**Jee Hwa Hong**

Deputy Division of Quality Examination,
Experiment Research Institute,
National Agricultural Products Quality
Management Service
Email address: hongjh19@korea.kr
Quarantine Policy Division, Ministry of Agriculture,
Food and Rural Affairs
Tel: +82.44.201.2081

TAILANDIA – THAILAND**Ms. Kulpipith Chanbuey,**

Standards officer, Office of Standards
Development, National Bureau of Agricultural
Commodity and Food Standards.
50 Phaholyothin Road, Ladyao, Chatuchak,
Bangkok, 1900 Thailand
Tel. (+662) 561 2277 Fax. (+662) 561 3357
E-mail: codex@acfs.go.th and
kulpipith@acfs.go.th