

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 3

CRD12

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

20th Session
Kampala, Uganda, 2 – 6 October, 2017

REVISED DRAFT STANDARD FOR AUBERGINES

(Prepared by India)

NOTE: THIS CRD CONTAINS TWO PARTS I.E. PART A: IN TRACK CHANGES AND PART B: CLEAN COPY OF THE DRAFT STANDARD

PART A: TRACK CHANGES

1. SCOPE

The purpose of the standard is to define the quality requirements for aubergine at the export-control stage 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;
- for aubergine 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.

2. DEFINITION OF PRODUCE

This Standard applies to commercial varieties of aubergines or eggplant grown from *Solanum melongena* L. of the *Solanaceae* family, to be supplied fresh to the consumer after preparation and packaging. Aubergines for industrial processing are excluded.

According to their shape a distinction is made between:

- elongated;
- globus/round; and
- oval aubergines.

3. PROVISIONS CONCERNING QUALITY

3.1 Minimum Requirements

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

- intact;
- provided with calyx and peduncle which may be slightly damaged;
- firm;
- fresh in appearance;
- 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;

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- free of bruising or extensive healed over-cuts;
- practically free of pests¹ 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 temperature or high temperature.

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

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

3.2.1.1 Maturity Requirements

The aubergines must be sufficiently developed without the flesh being fibrous or woody and without hard seeds.

3.2.2 CLASSIFICATION

Aubergines are classified into three classes defined below:

3.2.2.1 "Extra" Class

Aubergines in this class must be of superior quality. They must be firm and must be characteristic of the variety and /or commercial type. Stalk must be intact and flesh must be perfectly sound.

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

¹ [The provisions for pests applies without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention \(IPPC\).](#)

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3.2.2.2 Class I

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

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 and development;
- slight discoloration depending upon the variety;
- slight superficial defects, slight bruising and/or slight healed cracks provided they do not affect the flesh of the fruit.

3.2.2.3 Class II

This class includes aubergines which does not qualify for inclusion in the higher classes but satisfies the minimum requirements specified in Section 2.3.1 above. The following defects however may be allowed, provided the aubergine retains its essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape and development;
- discoloration depending upon variety;
- slight bruising and/or slight healed cracks or sun-scorched;
- slight dry skin defect provided they do not affect the flesh of the fruit.

4. PROVISIONS CONCERNING SIZING

Aubergines may be sized by diameter (i.e. maximum diameter of the equatorial section on the longitudinal axis), count, length or weight 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:~~

~~To ensure size uniformity in size, the of the aubergines is determined either based on range in size between produce in the maximum diameter of the equatorial (in mm); section on the longitudinal axis or by weight (in g). same package shall not exceed:~~

a) For sizing by diameter ~~the difference between the smallest and largest aubergine in the same package must not exceed:~~

- 20 mm for elongated aubergines;
- 25 mm for globus/round and oval aubergines.

~~Aubergines of 30 mm in diameter or smaller are not covered by this uniformity rules.~~

b) For sizing by weight ~~the difference between the smallest and largest aubergines in the package must not exceed:~~

- 10 g for aubergines between 20-50 g;
- 20 g for aubergines between ≥ 50 -100 g;
- 75 g for aubergines between ≥ 100 -300 g;
- 100 g for aubergines between ≥ 300 -500 g;
- 250 g for aubergines above 500 g.

Uniformity in size is compulsory only for Extra Class, but not for the aubergines with a diameter equal or below 30mm.

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, 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 Systems (CXG 47-2003).

5.1 QUALITY TOLERANCES

5.1.1 "Extra" Class

Five per cent by number or weight, of aubergines not satisfying the requirements of the Class but meeting those of Class I is allowed. [Included therein, is 1% tolerance for decay, soft rot and/or internal breakdown].

5.1.2 Class I

Ten per cent by number or weight, of aubergines not satisfying the requirements of the Class I but meeting those of Class II is allowed. Included therein, is 1% tolerance for decay, soft rot and/or internal breakdown.

5.1.3 Class II

Ten per cent by number or weight, of aubergines neither satisfying the requirements of the Class II nor the minimum requirement is allowed. Included therein, is 2% tolerance for decay, soft rot and/or internal breakdown.

5.2 SIZE TOLERANCES

For all classes (if sized), 10% by number or weight of aubergines not satisfying the requirements as regards sizing is allowed.

6. PROVISIONS CONCERNING PRESENTATION

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65.1 UNIFORMITY

The contents of each package must be uniform and contain aubergines of the same origin, variety or commercial type, quality, colour and size (if sized). The visible part of the contents of the package must be representative of the entire contents.

However, a mixture of aubergines of distinctly different commercial types may be packed together in a package, provided they are uniform in quality and for each commercial type concerned, in origin.

65.2 PACKAGING

Aubergines must be packed in such a way as to protect the produce properly. The materials used inside the package must be ~~of food-grade quality, clean, and of a quality~~ ~~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.

Aubergines 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).

65.2.1 Description of Containers

The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the aubergines. Packages 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* (CODEX ~~CXS STAN~~-1-1985), the following specific provisions apply:

7.1.1 Nature of Produce

~~If the produce is not visible from the outside,~~ each package shall be labelled as to the name of the produce and may be labelled as to the name of the variety and/or commercial type.

7.1.2 Origin of Produce

Country of origin^{1,2} and, optionally, district where grown, or national, regional or local place name.

In the case of a mixture of distinctly different varieties of aubergines of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.

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.

7.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional).²³

7.2.2 Nature of Produce

Name of the produce "aubergines" ~~if the contents are not visible from the outside.~~ Name of the variety and/or commercial type (optional). ~~Each shall be labelled as to the name of the produce and may be labelled as to name of the variety <and/or commercial type>~~

Mixture of aubergines, or equivalent denomination, in the case of a mixture of distinctly different commercial types of aubergines. If the produce is not visible from the outside, the commercial types and

^{1,2} The full or a commonly used name should be indicated.

²³ 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 abbreviation)" has to be indicated in close connection with the code mark.

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the quantity of each in the package must be indicated.

67.2.3 Origin of Produce

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

In the case of a mixture of distinctly different varieties of aubergines of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.

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67.2.4 Commercial Identification Specification

- class;
- size (if sized).

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7.2.5 Official Inspection Mark (optional)

8. CONTAMINANTS

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

78.2 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/CXS 193-1995).

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9. HYGIENE

89.1 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/RG/CXC 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CAC/RG/CXC 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

89.2 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/CXG 21-1997).

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PART B: CLEAN COPY**DRAFT STANDARD FOR AUBERGINES****1. SCOPE**

The purpose of the standard is to define the quality requirements for Aubergine at the export-control stage 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;
- for aubergine 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.

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This Standard applies to commercial varieties of aubergine or eggplant grown from *Solanum melongena* L. of the *Solanaceae* family to be supplied fresh to the consumer after preparation and packaging. Aubergines for industrial processing are excluded.

According to their shape a distinction is made between:

- elongated;
- globus/round; and
- oval aubergines.

3. PROVISIONS CONCERNING QUALITY**3.1 Minimum Requirements**

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

- intact;
- provided with calyx and peduncle which may be slightly damaged;
- firm;
- fresh in appearance;
- 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;
- free of bruising or extensive healed over-cuts;
- practically free of pests¹ 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 temperature or high temperature.

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

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

3.1.1 Maturity Requirements

The aubergines must be sufficiently developed without the flesh being fibrous or woody and without hard seeds.

3.2 CLASSIFICATION

Aubergines are classified into three classes defined below:

3.2.1 "Extra" Class

Aubergines in this class must be of superior quality. They must be firm and must be characteristic of the variety and /or commercial type. Stalk must be intact and flesh must be perfectly sound.

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

¹ 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).

3.2.2 Class I

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

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 and development;
- slight discoloration depending upon the variety;
- slight superficial defects, slight bruising and/or slight healed cracks provided they do not affect the flesh of the fruit.

3.2.3 Class II

This class includes aubergines which does not qualify for inclusion in the higher classes but satisfies the minimum requirements specified in Section 3.1 above. The following defects however may be allowed, provided the aubergine retains its essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape and development;
- discoloration depending upon variety;
- slight bruising and/or slight healed cracks or sun-scorched;
- slight dry skin defect provided they do not affect the flesh of the fruit.

4. PROVISIONS CONCERNING SIZING

Aubergines may be sized by diameter (i.e maximum diameter of the equatorial section on the longitudinal axis), count, length or weight 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.

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

a) For sizing by diameter:

- 20 mm for elongated aubergines;
- 25 mm for globus/round and oval aubergines.

b) For sizing by weight:

- 10 g for aubergines between 20-50 g;
- 20 g for aubergines between >50-100 g;
- 75 g for aubergines between >100-300 g;
- 100 g for aubergines between >300-500 g;
- 250 g for aubergines above 500 g.

Uniformity in size is compulsory only for Extra Class, but not for the aubergines with a diameter equal or below 30mm.

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. 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 Systems (CXG 47-2003)*.

5.1 QUALITY TOLERANCES

5.1.1 "Extra" Class

Five per cent by number or weight, of aubergine not satisfying the requirements of the Class but meeting those of Class I is allowed. [Included therein, is 1% tolerance for decay, soft rot and/or internal breakdown].

5.1.2 Class I

Ten per cent by number or weight, of aubergines not satisfying the requirements of the Class I but meeting those of Class II is allowed. Included therein, is 1% tolerance for decay, soft rot and/or internal breakdown.

5.1.3 Class II

Ten per cent by number or weight, of aubergines neither satisfying the requirements of the Class II nor the minimum requirement is allowed. Included therein, is 2% tolerance for decay, soft rot and/or internal breakdown.

5.2 SIZE TOLERANCES

For all classes (if sized), 10% by number or weight of aubergines not satisfying the requirements as regards sizing is allowed.

6. PROVISIONS CONCERNING PRESENTATION

6.1 UNIFORMITY

The contents of each package must be uniform and contain aubergines of the same origin, variety or commercial type, quality, colour and size (if sized). The visible part of the contents of the package must be representative of the entire contents.

However, a mixture of aubergines of distinctly different commercial types may be packed together in a package, provided they are uniform in quality and for each commercial type concerned, in origin.

6.2 PACKAGING

Aubergines 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.

Aubergines 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)*.

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 aubergines. Packages must be free of all foreign matter and smell.

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7.1 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:

7.1.1 Nature of Produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce and may be labelled as to the name of the variety and/or commercial type.

7.1.2 Origin of Produce

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

In the case of a mixture of distinctly different varieties of aubergines of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.

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.

7.2.1 Identification

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

7.2.2 Nature of Produce

Name of the produce "aubergines" Name of the variety and/or commercial type (optional).

Mixture of aubergines, or equivalent denomination, in the case of a mixture of distinctly different commercial types of aubergines. If the produce is not visible from the outside, the commercial types and the quantity of each in the package must be indicated.

7.2.3 Origin of Produce

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

In the case of a mixture of distinctly different varieties of aubergines of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.

7.2.4 Commercial Specification

- class;
- size (if sized).

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* (CODEX STAN 193-1995).

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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* (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.

- 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* (CAC/GL 21-1997).