

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 - Fax: (+39) 06 5705 4593 - E-mail: codex@fao.org - www.codexalimentarius.net

Agenda Item 3(a)

CX/FFV 11/16/5
March 2011

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

16th Session

Mexico City, Mexico, 2 – 6 May 2011

DRAFT CODEX STANDARD FOR AVOCADO
(revision of CODEX STAN 197-1995)

(At Step 6)

Prepared by the Electronic Working Group led by Cuba

Codex Members and Observers wishing to submit comments on this proposal should do so in conformity with the Uniform Procedure for the Elaboration of Codex Standards and Related Texts (Codex Alimentarius Procedural Manual) before **15 April 2011** to: the Chairperson of the Committee, Mr. Christian Turégano Roldán, Director General, Dirección General de Normas (DGN), Av. Puente de Tecamachalco 6, 2do piso, Lomas de Tecamachalco Sección Fuentes, C.P. 53950 Naucalpan de Juárez, Estado de México, México (Tels.: +52 (55) 57 29 94 80, +52 (55) 57 29 91 00, Ext.: 43220, 43218; Fax: +52 (55) 55 20 97 15; E-mail: dni.mexico@economia.gob.mx), with a copy to the Secretariat, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy (Fax: +39 (06) 5705 4593; E-mail: codex@fao.org)

BACKGROUND

1. The 15th Session of the Committee on Fresh Fruits and Vegetables agreed to reconvene the electronic working led by Cuba to revise the Standard, especially those sections associated with the inclusion of new varieties of avocados namely provisions concerning quality, in particular maturity requirements, and sizing as well as consequential amendments in other sections of the Standard resulting from the inclusion of these varieties.¹ The 33rd Session of the Commission adopted the Proposed Draft Standard at Step 5 and advanced it to Step 6 for additional comments and consideration at the subsequent session of the Committee². The working group revised the aforesaid provisions as presented in Annex I. The List of Participants is contained in Annex II.

REQUEST FOR COMMENTS

2. Codex members and observers are invited to comment on the Draft Standard for Avocado as indicated above. Particular attention should be paid to those provisions in square brackets that might need further debate in the Committee.

EXPLANATORY NOTES ON THE REVISION OF THE DRAFT STANDARD

GENERAL CONSIDERATIONS

3. The revised Standard is based on CODEX STAN 177-1995. The working group took into account comments submitted at Step 3 to the 15th Session of the Committee and those made at the plenary, comments submitted at Step 5 to the 33rd Session of the Commission and comments submitted by members of the working group during the internal discussion of the Standard. The revised sections have been aligned with the standardized text usually applying to Codex standards for fresh fruits and vegetables where appropriate. The Standard was also harmonized with UNECE Standard for Avocado where appropriate.

¹ ALINORM 10/33/35, paras. 69-70.

² ALINORM 10/33 REP, para. 79 & Appendix IV.

SPECIFIC CONSIDERATIONS

Section 2.1.1 Provisions concerning quality

4. The provision on “carefully picked” was retained as it affects the quality of the product due to damage arising from improper handling, which sometimes is observed when the fruit reaches maturity. The physiological development of the fruit and the time it takes to reach maturity, depend on the variety, geoclimatic conditions and handling technologies. In keeping with the proposal for inclusion of Antillean varieties, it is proposed to maintain the provision for variety and/or commercial type. The standardized text applying to Codex standards for fresh fruits and vegetables was also kept.

Section 2.1.2 Maturity requirements

5. The reference to the average was removed since footnote 2 refers to the minimum dry matter content applying to fruit lot and not to individual fruit therefore the average value of the sample is already considered. In this regard, the Committee had noted that the Standard should include methods of analysis and sampling in order to ensure its consistent application and to this aim relevant provisions were included in footnote 2.

6. In accordance with the Procedural Manual of the Codex Alimentarius Commission (Section II – Relations between commodity committees and general committees), when a commodity standard includes provisions for methods of analysis and sampling, they should be referred to the Committee on Methods of Analysis and Sampling at Step 4 which would delay the finalization of the Standard. The worldwide trade in avocados, with standards from UNECE, Colombia, Mexico, United States of America, amongst others, imply that inspection services at the import and/or export control points know the method to determine dry matter content as an indirect method for the evaluation of oil content.

7. In order to propose dry matter content for Antillean avocados, research was developed in Cuba, whose results have revealed that the harvest can start with a dry matter content of 18%, which increases with the development of the fruit, for cultivars with a 7 to 10% oil content. A dry matter content of 19% is established for other varieties not defined, except the Antillean varieties as set out in the UNECE Standard for Avocado.

8. The acceptance of the Antillean varieties is in correspondence with the active development of new fruit varieties motivated by novel attributes and functional health benefits. In the General Decisions of the Procedural Manual of the Codex Alimentarius Commission it is pointed out that when elaborating and deciding upon food standards regard should be given to the promotion of fair practices in food trade.

Section 3 Provisions concerning sizing

9. The size 32 (S) and the footnote was removed from the sizing table. A minimum weight of 80 g was agreed for the Hass variety and a minimum weight of 170 g is proposed for Antillean varieties. This section was also harmonized with the UNECE Standard for Avocado.

Section 5.1 Uniformity

10. It was agreed to retain “variety and/or commercial type” as optional to be consistent with the inclusion of a different denomination from the name of the variety used in avocado trade. The exception for mixed sizes and varieties was deleted.

Section 6.1.1 Nature of Produce

11. It was agreed to retain “variety and/or commercial type” as optional to be consistent with the inclusion of a different denomination from the name of the variety used in avocado trade.

Section 6.2.2 Nature of Produce

12. It was agreed to retain “variety and/or commercial type” as optional to be consistent with the inclusion of a different denomination from the name of the variety used in avocado trade.

DRAFT CODEX STANDARD FOR AVOCADO

(revision of CODEX STAN 197-1995)

1. DEFINITION OF PRODUCE

This Standard applies to commercial varieties (cultivars) of avocados grown from *Persea americana* Mill. (Syn. *Persea gratissima* Gaertn), of the *Lauraceae* family, to be supplied fresh to the consumer, after preparation and packaging. Parthenocarpic fruit and avocados for industrial processing are excluded.

2. PROVISIONS CONCERNING QUALITY**2.1 MINIMUM REQUIREMENTS**

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

- whole;
- 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 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;
- practically free of damage caused by low and/or high temperatures;
- having a stalk not more than 10 mm in length which must be cut off cleanly. However, its absence is not considered a defect provided the place of the stalk attachment is dry and whole.

2.1.1 The avocados must [have been carefully picked] and have reached a stage of physiological development which will ensure the completion of the ripening process, in accordance with criteria proper to the variety [and/or commercial type] and to the area in which they are grown. The mature fruit should be free of bitterness.

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

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

2.1.2 Maturity requirements

The fruit should have a minimum dry matter content² at the harvest, according to the variety, to be measured by drying to constant weight:

- 21 % for the variety Hass;
- 20 % for the varieties Torres, Fuerte, Pinkerton, Ettinger, Edranol, Reed, Zutano;
- 19 % for other varieties except for Antillean varieties;
- [18%] for Antillean varieties.

2.2 CLASSIFICATION

Avocados are classified in three classes defined below:

2.2.1 "Extra" Class

Avocados in this class must be of superior quality. In shape and colouring they must be characteristic of the variety. 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. If present, the stalk must be intact.

¹ This provision allows for smell caused by preservatives, or any other chemical substances, used in conformity with the corresponding regulations.

² This requirement applies to a fruit lot and not to individual fruits. The percentage of dry matter (DM) is determined with 10 g of the mass of each fruit sample, dried off in a microwave, determining the weight every 10 minutes until constant weight. The relation between fresh weight (FW) and dry weight (DW) is determined with the formula: % DM= DW-T/FW – T x 100, where T is the hang-up of the Petri dish where the mass of the fruit is placed in the microwave.

2.2.2 Class I

Avocados in this class must be of good quality and show the typical colour and shape of the variety. 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 defects in shape and colouring;
- slight skin defects (corkiness, healed lenticels) and sunburn; the maximum total area should not exceed 4 cm².

The defects must not, in any case, affect the flesh of the fruit.

The stalk, if present, may be slightly damaged.

2.2.3 Class II

This class includes avocados which do 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 avocados retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape and colouring;
- skin defects (corkiness, healed lenticels) and sunburn; the maximum total area should not exceed 6 cm².

The defects must not, in any case, affect the flesh of the fruit.

The stalk, if present, may be damaged.

3. PROVISIONS CONCERNING SIZING

Avocados can be sized through one of the following options:

- a) by the weight of the fruit, in accordance with the following table:

Size Code	Weight (in grams)
2	> 1220
4	781 to 1 220
6	576 to 780
8	461 to 575
10	366 to 460
12	306 to 365
14	266 to 305
16	236 to 265
18	211 to 235
20	191 to 210
22	171 to 190
24	156 to 170
26	146 to 155
28	136 to 145
30	125 to 135

The minimum weight of avocados must not be less than 125 g, [except for the Hass where it is 80 g] and for Antillean varieties where it is 170 g.

- b) by count of fruits. These size codes and weight bands are based on 4 kg net weight tray. Where different net weight tray is used, different size codes and weight bands may apply.

4. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package 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 avocados not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

4.1.2 Class I

Ten percent by number or weight of avocados not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

4.1.3 Class II

Ten percent by number or weight of avocados satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption.

4.2 SIZE TOLERANCES

For all classes, 10% by number or weight of avocados corresponding to the size immediately above or below that indicated on the package.

5. PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

The contents of each package must be uniform and contain only avocados of the same origin, variety [and/or commercial type], quality and size. The visible part of the contents of the package must be representative of the entire contents.

5.2 PACKAGING

Avocados must be packed in such a way as to protect the produce properly. The materials used inside the package must be new³, clean, and of a 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 labelling has been done with non-toxic ink or glue.

Avocados shall be packed in each container in compliance with the Recommended International 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 avocados. Packages must be free of all foreign matter and smell.

6. MARKING OR LABELLING

6.1 CONSUMER PACKAGES

In addition to the requirements of the Codex 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 and may be labelled as to name of the variety [and/or commercial type].

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.

³ For the purposes of this Standard, this includes recycled material of food-grade quality.

6.2.1 Identification

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

6.2.2 Nature of Produce

Name of the produce if the contents are not visible from the outside. 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 in minimum and maximum weight in grams;
- Code number of the size scale and count of fruits when it is different from reference number;
- 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 levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995)

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

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 Recommended International Code of Practice – 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 for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

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.

LIST OF PARTICIPANTS
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Chairperson:
Presidente:

MSC. Cira M. Sánchez García
President of Standardization National Committee on Fresh Fruits and Vegetables
Research Institute on Tropical Fruits
Ministry of Agriculture
7th Avenue No. 3005 b/ 30 and 32 street , Miramar
La Habana PB 16600
Phone : (53-7) 209-3401/209-3585
Fax : (53-7) 204-6794
Email : calidad@iift.cu

AUSTRALIA

Dr Robert Solomon
Manager (Acting)
International Food Standards
Product Integrity, Animal & Plant Health
Department of Agriculture Fisheries and Forestry
Tel: +61 2 6272 5945
Fax: +61 2 6272 4367
Mobile: 0423 002 507
robert.solomon@daff.gov.au

BRASIL

Mrs. Maria Aparecida Martinelli
Coordinator of Brazilian Codex Committee
National Institute for Metrology, Standardization and
Industrial Quality - INMETRO
Ministry of Development, Industry and Trade
Phone: +55 61 3340 2211
Email: codexbrasil@inmetro.gov.br

Mrs. Karina Fontes Coelho Leandro
Agropecuaria Federal Fiscal
Ministry of Agriculture, Livestock and Food Supply – MAPA
Tel: 5561 32183251
Fax: 5561 3224 4322
E-mail: karina.leandro@agricultura.gov.br

BURUNDI

Ir NZINAHORA Gervais
Burundi Bureau of Standards and Quality Control (BBN).
Permanent Technical Secretary on Fresh Fruits and
Vegetables Sector
Boulevard de la Tanzanie N° 500
P.O.Box: 3535 Bujumbura- Burundi
Tel.: +257 22 22 1577 (Office)
+257 22 24 7120 (Home)
Mobile phone: +257 79 435 756

COLOMBIA

Mr. Ricardo Enrique Munar León
Standardization Professional - ICONTEC
Phone (571) 607 88 88 ext.:1442
Attention line to the client : 01 8000 94 900
Bogotá: (571) 638 29 19
Carrera 37 No. 52 - 95
Bogotá - Colombia
www.icontec.org

COSTA RICA

Mrs. Gina Monteverde
Manager. Plan Protection Service.
Phone: (506) 2260-8300
Email: gmonteverde@sfe.go.cr

KENYA/KENIA

Mrs. Alice A. Okelo Onyango
Manager - National Codex Office
International Codex Food Standards
Kenya Bureau of Standards
P.O.BOX 54974 00200 POPO ROAD
OFF MOMBASA ROAD
Phone::254 20 605490/6948303
FAX:254 02 604031/609660
CELL:254 722268225
akothe@kebs.org/dereda.onyango1@gmail.co

NEW ZEALAND/NUEVA ZELANDIA

Mr Phil Fawcet
New Zealand Food Safety Authority
Principal Adviser (International Standards)
Export Trade Standards
Level 6, South Tower
Telecom Network House
68-86 Jervois Quay
Ph: 04 894 2656
Fax: 04 894 2675
Cell: 029 894 2656
phil.fawcet@nzfsa.govt.nz

Wellington

New Zealand
PO Box 2835

UNECE/CEPE

Mr. Serguei Malanitchev
Agricultural Quality Standards UNECE. Trade and Timber
Division Tel: +41 22 917-41-46
Fax: +41 22 917-06-29
serguei.malanitchev@UNECE.ORG