



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

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Comments submitted on the Draft Standard for Avocado (revision of CODEX STAN 197-1995) by: Costa Rica, European Union, Jamaica, Kenya, Jamaica, New Zealand and the United States of America.

COSTA RICA

Costa Rica welcomes the opportunity to make the following comments to the Draft Standard for Avocado (revision of CODEX STAN 197-1995).

In the following section, Costa Rica considers that the last sentences should be eliminated.

"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."~~

Justification: Due to bulk can be interpreted as the transportation of fruit in large quantities without specifying the weight, which may cause the product:

- Mechanical damages (knocks, cuts, abrasions, bruises), compressing of the fruit located at the bottom of the container and loosening of the stalk (a possible source of entry of pathogens).

EUROPEAN UNION

General comments

The European Union and its Member States (EUMS) would like to thank Cuba for leading the work on revising the Codex Standard for Avocado (CODEX/STAN 197-1995). The EUMS continue to support the revision in order to cover new varieties currently marketed internationally. In this work, the recently revised UNECE Standard for Avocados (FFV-42) should be taken into account, where appropriate.

Specific comments

1. Definition of produce

Delete the term "(Syn. *Persea gratissima* Gaertn)".

Rationale: There are at least 13 different synonyms known. The approved botanical name should be sufficient. Source: www.ars-grin.gov.

2.1.1

Delete the words in square brackets [have been carefully picked].

Rationale: This requirement is a tool to ensure that fruits meet the quality requirements which are set in other sections of the standard. It does fit in a Codex commodity standard because it is not a characteristic of the produce and its compliance cannot be verified at the point of inspection.

Delete the square bracketed term "commercial type".

Rationale: The term is redundant as there are no provisions on commercial types in the standard. Moreover, avocados are traded by variety. Using the term "commercial type" would allow mixtures of varieties that are not distinctly different which is not acceptable.

2.1.2 Maturity requirements

The EUMS prefer to move the provisions in footnote 2 concerning the method to determine the dry matter content to a new section "11 Methods of analysis and sampling", as foreseen in the draft standard lay-out. The proposed method should be endorsed by CCMAS in accordance the Procedural Manual. This procedure would not delay the adoption of the standard because other sections of the standard could be sent for final adoption at the 34th CAC. Only the adoption of the new section 11 would remain pending until the endorsement of CCMAS.

The varieties "Ettinger" and "Zutano" should be taken out from the second indent (20% dry matter content) because they fall under the third indent (19% dry matter content).

The EUMS support the dry matter content of 18% for Antillean varieties.

2.2.1 "Extra class"

In the second sentence, delete the words "In shape and colouring".

Rationale: The produce must be characteristic of the variety in all aspects, not only in shape and colouring.

2.2.2 Class I

Modify the first sentence as follows:

Avocados in this class must be of good quality. ~~They must be characteristic and show the typical colour and shape of the variety.~~

Rationale: The produce must be characteristic of the variety in all aspects, not only in shape and colouring.

3. Provisions concerning sizing

Concerning the table on sizing, the EUMS propose that it would be identical to the one in the UNECE Standard, which includes light overlap of intervals, in order to cover the margin of error of the sizing machines (and the natural decreases).

With regard to the square bracketed minimum weight of 80 g for the Hass, the EUMS suggest deleting the square brackets because this derogation is needed for the early-season Hass variety. Consequently, in the size table the line reflecting the size group 80 to 124 g should be re-inserted.

4.2 Size tolerances

Modify the provision as follows:

~~"For all classes: 10% by number or weight of avocados corresponding to the size immediately above and/or below that indicated on the package not meeting the requirements as regards sizing is allowed."~~

Rationale: The text as it currently stands does not allow any fruit that is much smaller or larger than the size groups immediately above and/or below. This means that a lot with one or two very small or very large fruits in the sample would have to be rejected although the 10% tolerance might not yet be exhausted.

5.1 Uniformity

In line with the comment on section 2.1.1, the term "commercial type" in square brackets should be deleted.

6.1.1 and 6.2.2 Nature of produce

In line with the comment for section 2.1.1, the term "commercial type" in square brackets should be deleted. The name of the variety should always be indicated in the package. Therefore, the word "may" in point 6.1.1 should be replaced by "shall" and the word "optional" should be deleted in point 6.2.2.

JAMAICA

General comments

Jamaica would like to thank Cuba for leading the electronic working group on the revision of the existing Codex Standard for Avocados (CODEX STAN 197-1995, AMD.1-2005)

Jamaica supports the proposal to have a revision of the Avocado standard in order that sections be adjusted to include new varieties of avocados trades; 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 new varieties.

Specific comments

2.1.1 Provisions concerning quality

- Jamaica recommends that **"have been carefully picked. Their development should"** be removed from the standard. This requirement, "have been carefully picked", cannot be verified at inspection.

2.1.2 Maturity requirements

- Jamaica recommends that the **dry matter content** be deleted for the Antillean/West Indian varieties.

The values within the draft for these varieties are not scientifically proven and dry matter content is not used to determine the maturity of the avocados in much of the Caribbean region. In addition, calculating the dry matter content for varieties "not defined" is not scientific.

3. Provision concerning sizing

- Jamaica supports the addition of the minimum size of **Hass variety (80 g)**.

This size Hass is already being traded and its addition to the standard will not negatively affect the trade of any other avocado variety.

5.1 Uniformity

- Jamaica recommends that the text **"this requirement does not apply to mixed retail packages"** be added to the uniformity section.

Jamaica currently supplies its international markets with composite/mixed packages. Retail importers are known to mix the varieties during sale.

KENYA

2.1.1 The avocados must [have been carefully picked. Their development should] have reached a stage of physiological development which will ensure proper 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.

2.1.2 Maturity requirements

The fruit should have an average 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;
- [18%] for the other varieties Suardía, Lula, Choquette, Collinson, Booth, and other not defined (including Guatemalan West x Indian hybrids);
- [16%] for West Indian varieties Catalina, Sicilia, Wilson popenoe, Pollock, Simmonds and other no defined.

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 table³:

Avocado Appendix IV

28	136 to 145
30	125 to 135
[32 (S)]	[124 to 80]

The minimum weight of avocados must not be less than 125 g [except for the Hass that is 80 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.

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 [except for mixed sizes and varieties]. The visible part of the contents of the package must be representative of the entire contents.

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].

6.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional)⁵.

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).

NEW ZEALAND

New Zealand appreciates the opportunity to comment on the Draft Standard for Avocado. We comment as follows:

Section 2. Provisions concerning quality

Section 2.1.1 states that "avocados must [have been carefully picked]..."

We recommend that the wording in brackets should be removed. Section 1 states that the standard applies to avocados "after preparation and packaging". By this definition the harvesting process is specifically excluded from the standard. Furthermore any poor handling at harvest will result in skin defects, which are appropriately dealt with under Section 2.2 Classification.

Section 2.1.2 Maturity Requirements

We recommend that the provisions for dry matter content would be clarified by separating into two footnotes. The footnotes would be placed in the preliminary text as follows:

The fruit should have a minimum dry matter content² at the harvest, according to the variety, to be measured by drying to constant weight³:

Footnote 2 should be limited to the sentence:

This requirement applies to a fruit lot and not to individual fruits.

The remainder of the current footnote relates specifically to the method of testing and should be placed as a separate footnote (3). The wording needs to be corrected by replacing "... the **hang-up** of the Petri dish" with "...the **weight** of the Petri dish". The new footnote 3 would therefore read:

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= $\frac{DW-T}{FW - T} \times 100$, where T is the weight of the Petri dish where the mass of the fruit is placed in the microwave.

Section 3, Provisions Concerning Sizing

Avocados are sized by two methods that we know of: by weight and the corresponding count or code, and by diameter. The opening sentence should introduce these options as follows:

Avocados can be sized by weight and count, or by diameter.

Part (a) describes sizing by weight, with corresponding size codes. It should be noted that the "size code" is actually the number of fruit in a tray of (nominally) 4 kg. (In each row of the table, the size code multiplied by the mid-point of the weight range equals approximately 4 kg.) We therefore suggest that the preliminary text to the table should read:

- a) Sizing by weight of the fruit and the count in accordance with the following table.

For clarity the basis of the size codes should be explained in a footnote attached to the column heading "Size Code" that reads:

These size codes and weight bands are based on the count of fruit in a nominal 4 kg net weight tray.

Part (b) allows the option of other size codes and weight bands to be utilized based on a different unit tray weight. This is also sizing by weight and count, which is the topic of part (a). We therefore suggest that the sentence, "Where different net weight tray is used, different size codes and weight bands may apply" should be included in part (a).

We understand some countries size by diameter. This could be included as part (b) as follows:

- b) Sizing by diameter, measured at the widest equatorial axis of the fruit.

THE UNITED STATES OF AMERICA

The United States welcomes the opportunity to submit the following comments on the proposed draft revised Codex Standard for Avocados (CODEX STAN 197-1995). Though the original scope for the revision of this standard was to amend the section on "Provision Concerning Sizing," the United States believes it is an ideal opportunity to make other necessary amendments to the standard so that it better reflects trading practices.

Specific Comments

1. DEFINITION OF PRODUCE

This standard applies to commercial varieties (*cultivars*) of avocados grown from *Persea* (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.

Comment: The Definition of Produce should only apply to commercial varieties of avocados and not to cultivars--extending the standard to include cultivars is impractical since not all cultivars are traded commercially. For this reason, the United States recommends the deletion of "cultivars" wherever it appears in this draft standard.

2.1 MINIMUM REQUIREMENTS

2.1.1 The avocados must ~~have been carefully picked. Their development should~~ have reached a stage of physiological development, which will ensure proper 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.

Comment: We recommend that the bracketed text [have been carefully picked. Their development should] be deleted from the standard due to the following reasons:

- I. The Definition of Produce clearly states the standard applies "to be supplied fresh to the consumer after preparation and packaging"; therefore, harvest practices are excluded from the standard;
- II. During application of the standard, it is impossible to differentiate each cause of physical damage to the fruit; and
- III. Codex FFV standards do not include handling requirements for harvest, post harvest, or transportation.

2.1.2 Maturity requirements

The varieties listed below fruit should have average minimum dry matter content¹ 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;
- [18%] for the other varieties Suardía, Lula, Choquette, Collinson, Booth, and others not defined (including Guatemalan West x Indian hybrids);
- [16%] for West Indian varieties Catalina, Sicilia, Wilson popenoe, Pollock, Simmonds and other no defined.

Comment: The United States recommends the deletion of the third and fourth indents due to the following:

- I. The "dry matter content" for West Indian/Antillean/Guatemalan avocado varieties has not been scientifically validated within the main producing region (Central America, the Caribbean, and Florida).
- II. The physical characteristics of many West Indian/Antillean/Guatemalan commercial varieties are indistinguishable and therefore marketed as one variety. For that reason, imposing a maturity requirement for "others not defined" is arbitrary and unscientific.

2. PROVISIONS CONCERNING SIZING

Comment: The United States recommends that the opening sentence be re-written to reflect all the methods of sizing used in the avocado-trade as follows:

Avocados can be sized by weight, diameter, and count.

- a) Sizing by weight in accordance with the following table (retained). However, the footnote to the table that reads, "*Nevertheless, no account should be taken for a given fruit of a deviation of more or less than 2% with regard to the size code indicated on the package*"- should be deleted for the Section 4.2 *Size Tolerance* takes care of this requirement.
- b) Sizing by diameter- measured at the widest equatorial axis of the fruit.
- c) Sizing by count (i.e. the number of fruit per container). West Indian/Antillean/Guatemalan avocado varieties are mainly sold by count and not by diameter or weight.

4. PROVISIONS CONCERNING TOLERANCES

4.1 QUALITY TOLERANCES

Comment: Due to the highly perishable nature of avocados, the United States recommends that CCFV include tolerances for decay and internal breakdown at destination, as follows in the italicized text:

¹ This requirement applies to a fruit lot and not to individual fruits.

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. *Within this tolerance at destination, not more than 1% affected by decay and internal breakdown.*

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. *Within this tolerance at destination not more than 3% affected by decay and internal breakdown.*

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. *Within this tolerance at destination not more than 5% affected by decay and internal breakdown.*