

Caribbean Community

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CRS 24-3 (2010) (English):
Grapefruits



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CARICOM REGIONAL STANDARD

**Specification for grades of fresh
agricultural produce**

Part 3: Grapefruits

CRS 24: Part 3: 2010



Caribbean Community



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Foreword

This CARICOM Regional Standard is designed to:

- a) improve the regional and international market competitiveness of grapefruits and to address critical concerns relating to quality in the production of grapefruits in the region;
- b) avoid misunderstanding and confusion among those involved in the marketing chain;
- c) provide an objective basis for relating price with quality;
- d) encourage better selection, packaging and presentation of produce as a means of obtaining greater income overall; and
- e) assist exporters and their countries in meeting export market requirements and thereby enhancing their reputation and market position.

This standard was approved by the Twenty-ninth Council for Trade and Economic Development (COTED) on 8-9 February 2010.

In the development of this standard, assistance was derived from the following:

- a) CODEX Standard, CODEX STAN 219-1999, AMD. 2-2005, Specifications for Grades of Grapefruits;
- b) Guyana Standard, GYS 27: 1995, Specification for Grades of Grapefruits.

NOTE During the development of this standard, the CARICOM Regional Code of Practice for Food Hygiene was still under development.

1 Scope

This regional standard specifies the quality requirements of commercial varieties of grapefruits grown from *Citrus paradisi Macfad.* of the *Rutaceae* family, to be supplied fresh to the consumer, after preparation and packaging.

This standard does not apply to grapefruits for industrial processing.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Recommended International Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CAC/RCP 44-1995, Amd. 1-2004)

CODEX Alimentarius Commission, CODEX General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985, Rev. 1-1991)

CODEX Alimentarius Commission, Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 27- 1997)

3 Terms and definitions

For the purposes of this standard the following terms and definitions shall apply.

3.1

clean

free from scales, insects, loose or adhering soil and all other foreign matter including sooty moulds

3.2

damage

defect or combination of defects which materially detract from the appearance or edibility of the fruit

3.3

firm

not soft, noticeably wilted or spongy, and the skin does not have a swollen appearance which is not characteristic of the variety

3.4

fairly well coloured

not less than 80 % of the fruit exhibit a colour that is typical of the variety at maturity

3.5

disease

any visible evidence of moulds, bacterial and fungal rots, or any symptom viral infections

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3.6

mature

stage of development where optimum growth characteristics of the variety are attained, and post harvest handling is not adversely affected

3.7

sound

produce not affected by rot or deterioration such as to make it unfit for consumption

3.8

well coloured

not less than 90 % of the fruit exhibiting a colour typical of the variety at maturity

4 Requirements

4.1 Quality

4.1.1 Minimum requirements

4.1.1.1 Grapefruits shall meet the following minimum requirements, subject to the special provisions as specified in 4.1.2 and 4.2:

- a) whole;
- b) sound;
- c) clean;
- d) free of pests affecting the general appearance of the produce;
- e) free of damage caused by pests;
- f) free of abnormal external moisture, excluding condensation following removal from cold storage;
- g) free of any foreign odour and or taste;
- h) firm;
- i) free from damage caused by low and or high temperatures or frost; and
- j) free from bruising.

4.1.1.2 Grapefruits shall be should be picked when they have reached an appropriate degree of development and ripeness in accordance with criteria proper to the variety and or commercial type.

4.1.1.3 The development and condition of the grapefruits shall be such as to enable them to:

- a) withstand transportation and handling; and
- b) arrive in satisfactory condition at the place of destination

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4.1.2 Maturity

The maturity shall be determined by the minimum juice content, which shall not be less than 35 %, when calculated in relation to the total weight of the fruit.

4.1.3 Colouring

Colouring shall be typical of the variety. However, fruits of a greenish colour are allowed, provided they comply with the minimum requirements. Red-pulp varieties may have reddish patches on the rind.

NOTE Grapefruits meeting the minimum requirements as regards ripeness may be "degreened", on condition that this treatment does not modify other organoleptic characteristics.

4.1.4 Classifications

Grapefruits shall be classified as Class I, II and III.

4.1.4.1 Class I

Grapefruits in this class shall be:

- a) of superior quality;
- b) characteristic of the variety and or commercial type; and
- c) free of defects.

NOTE Very slight superficial 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.

4.1.4.2 Class II

4.1.4.2.1 Grapefruits in this class shall be:

- a) of good quality; and
- b) characteristic of the variety and or commercial type

4.1.4.2.2 Grapefruits may have the following slight defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- a) slight defects in shape;
- b) slight defects in colouring;
- c) slight skin defects inherent in the formation of the fruit;
- d) slight healed skin defects due to mechanical causes, such as impact of hail, rubbing or damage from handling; and
- e) slight skin discolouration due to rust mite, melanoses, and other blemishes not exceeding more than 5 % of the surface of the fruit

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NOTE The defects are not, in any case, allowed to affect the pulp of the fruit.

4.1.4.3 Class III

4.1.4.3.1 This class includes grapefruits which do not qualify for inclusion in Class I and Class II, but satisfy the minimum requirements specified in 4.1.1.

4.1.4.3.2 The following defects may be allowed provided the grapefruits retain their essential characteristics with regards to the quality, the keeping quality and presentation:

- a) defects in shape;
- b) defects in colouring;
- c) defects from healed superficial wounds on the skin;
- d) healed defects due to mechanical causes, such as impact of hail, rubbing or damage from handling;
- e) slight skin discolouration due to rust mite, melanoses, and other blemishes not exceeding more than 10 % of the surface of the fruit; and
- f) rough skin.

NOTE The defects are not, in any case, allowed to affect the pulp of the fruit.

4.2 Sizing

4.2.1 Grapefruits shall be sized by the maximum diameter of the equatorial section of the fruit, in accordance with the Table 1.

NOTE Grapefruits of a diameter below 70 mm are excluded.

Table 1 — Size code

Size code	Diameter mm
0	> 139
1	109 - 139
2	100 - 119
3	93 - 110
4	88 - 102
5	84 - 97
6	81 - 93
7	77 - 89
8	73 - 85
9	70 - 80

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4.2.2 Grapefruits may be packed by count. In this case, provided the size uniformity required by the standard is retained, the size range in the package may fall outside a single size code, but within two adjacent codes.

4.2.3 Uniformity in size shall be achieved by the above mentioned size scales, except in the case of fruit in bulk bins and fruit in individual non-rigid (nets, bags) packages for direct sale to the consumer. In this case, the maximum size difference between the smallest and the largest fruit in the same lot or package shall not exceed the range obtained by grouping three consecutive sizes in the size scale.

5 Tolerances

Each package of produce not satisfying the requirements of quality and size for the class indicated as outlined in 4.1 and 4.2 shall be allowed tolerances as stated in 5.1 and 5.2.

5.1 Quality

5.1.1 Class I

5 % by number or weight of grapefruits not satisfying the requirements of this class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

5.1.2 Class II

10 % by number or weight of grapefruits not satisfying the requirements of the class, but meeting those of Class III or, exceptionally, coming within the tolerances of that class.

5.1.3 Class III

5.1.3.1 10 % by number or weight of grapefruits satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

5.1.3.2 A maximum of 5 % of fruit showing slight superficial unhealed damage, dry cuts or softness and shrivelling is allowed.

5.2 Size tolerances

All classes shall be allowed a tolerance of 10 % by number or weight of grapefruits corresponding to the size immediately above or below that indicated on the package.

NOTE In the case of bulk consignment, the 10 % tolerance only applies to fruit with a diameter of not less than 70 mm.

6 Presentation

6.1 Presentation

6.1.1 It is permissible for grapefruits to be presented in one of the following ways:

- a) aligned in regular layers, according to size ranges, in closed or open packaging;

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NOTE This form of presentation is optional for Classes II and III.

- b) non-aligned in closed or open packaging according to size ranges. In bulk (in one means of transport or one transport compartment), three consecutive size codes are allowed in any one package

NOTE These types of presentation are only allowed for Classes II and III.

- c) in bulk, by one means of transport or in one transport compartment, without further requirement than that of minimum size; and

NOTE This form of presentation is only allowed for Class III.

- d) in individual packages for direct consumer sale with a maximum weight of 5 kg and complying with the following:
 - 1) when containers are made up by number of grapefruits, the size scales are mandatory for all classes; and
 - 2) when containers are made up by weight, the size scales are not compulsory but the maximum difference between the grapefruits shall not exceed the sum of three consecutive sizes in the size scales.

6.1.2 Containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the grapefruits.

6.1.3 Packages must be free of all foreign matter and odour.

6.2 Uniformity

6.2.1 The contents of each package (or lot for produce presented in bulk) shall be uniform and contain only grapefruits of the same origin, variety and or commercial type, quality, size and colour.

6.2.2 The visible part of the contents of the package (or lot for produce presented in bulk) shall be representative of the entire contents.

6.3 Packaging

6.3.1 Grapefruits shall be packed in such a way as to adequately protect the produce.

6.3.2 The materials used inside the package shall be new, clean, and of a quality such as to avoid causing any external or internal damage to the produce.

NOTE 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.

6.3.3 Grapefruits 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, Amd. 1-2004).

7 Labelling

7.1 Consumer Packages

In addition to the requirements of the CODEX General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985, Rev. 1-1991), the nature of produce shall be included.

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

7.2 Non-retail containers

Each package shall 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 in the official language(s) of the country in which the produce is to be sold. For produce transported in bulk, these particulars shall appear on a document accompanying the goods.

a) identification (name and address of exporter, packer and or dispatcher);

NOTE Identification code is optional.

b) nature of produce (name of the produce if the contents are not visible from the outside and the indication "pink" or "red" where appropriate);

NOTE Name of variety or commercial type is optional.

c) country of origin of produce; and

NOTE District where grown or national, regional or local place name is optional.

d) commercial identification as follows:

- 1) class;
- 2) size (size code or minimum and maximum diameter in mm);
- 3) net weight; and
- 4) size code (or, when fruit packed by count fall under two adjacent codes, size codes or minimum and maximum diameter in mm) and number of fruit, in the case of fruit arranged in layers in the package

NOTE The use of red or orange should be avoided since these colours are used in the labelling of dangerous goods.

8 Contaminants

8.1 Heavy metals

Grapefruits shall comply with those maximum levels for heavy metals established by the CODEX Alimentarius Commission for this commodity.

8.2 Pesticide residues

Grapefruits shall comply with those maximum pesticide residue limits established by the CODEX Alimentarius Commission for this commodity.

9 Hygiene and sanitation

8.1 It is recommended that the produce covered by the provisions of this standard be prepared and handled in conjunction with the appropriate clauses of the latest edition of the CARICOM Regional Code of Practice for Food Hygiene or other international Codes of Practice which are relevant to this commodity.

8.2 Grapefruits shall comply with any microbiological criteria established in accordance with the CODEX Alimentarius Commission Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 27- 1997).

8.3 Grapefruits shall comply with Sanitary and Phyto-Sanitary (SPS) requirements of both the importing and exporting countries.

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CARICOM REGIONAL ORGANISATION FOR STANDARDS AND QUALITY

The CARICOM Regional Organisation for Standards and Quality (CROSQ) was created as an Inter-Governmental Organisation by the signing of an agreement among fourteen Member States of the Caribbean Community (CARICOM). CROSQ is the regional centre for promoting efficiency and competitive production in goods and services, through the process of standardization and the verification of quality. It is the successor to the Caribbean Common Market Standards Council (CCMSC), and supports the CARICOM mandate in the expansion of intra-regional and extra-regional trade in goods and services.

CROSQ is mandated to represent the interest of the region in international and hemispheric standards work, to promote the harmonization of metrology systems and standards, and to increase the pace of development of regional standards for the sustainable production of goods and services in the CARICOM Single Market and Economy (CSME), and the enhancement of social and economic development.

CROSQ VISION:

The premier CARICOM organisation for the development and promotion of an Internationally Recognised Regional Quality Infrastructure; and for international and regional harmonized CARICOM Metrology, Standards, Inspection, Testing and Quality Infrastructure

CROSQ MISSION:

The promotion and development of standards and standards related activities to facilitate international competitiveness and the sustainable production of goods and services within the CARICOM Single Market and Economy (CSME) for the enhancement of social and economic development



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