
Final Draft
Jamaican Standard Specification

for

**Fruit and vegetable
juices and drinks, and fruit nectars**



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Product Certification Marks



Plant Certification Mark



Certification of Agricultural Produce
(CAP) Mark



Jamaica-Made Mark

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Jamaican Standard Specification**

for

**Fruit and vegetable
juices and drinks, and fruit nectars**

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July 2011

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ISBN 978-976-604-494-7

Declared by the Bureau of Standards to be a standard specification pursuant to section 7 of the Standards Act 1968.

First published 20XX

Jamaican Standards establish requirements in relation to commodities, processes and practices, but do not purport to include all the necessary provisions of a contract.

The attention of those using this standard specification is called to the necessity of complying with any relevant legislation.

Amendments

No.	Date of Issue	Remarks	Entered by and date

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NOTE

Informative Annex – gives additional information intended to assist in the understanding or use of the document. They do not contain requirements.

Normative Annex – gives provisions additional to those in the body of a document. They contain requirements.

National foreword

This standard is an adoption and is identical to CRS 27: 2010 CARICOM Regional Standard Specification for Fruit and vegetable juices and drinks, and fruit nectars. It was developed by the CARICOM Regional Organization for Standards and Quality (CROSQ). Regional territories are mandated to adopt approved CARICOM Standards.

This standard specifies quality, hygiene and labelling requirements for juices and drinks derived from edible fruits and vegetables, fruit nectars, as well as non-carbonated beverages, containing no fruit or vegetable solids.

This standard is intended to be compulsory.

Committee representation

This CARICOM Regional Standard was prepared under the supervision of the Regional Technical Committee for Food (RTC 3 – CODEX Sub-Committee), (hosted by the Member State, Barbados), which at the time comprised of the following members:

Dr B Wood, Chairperson	Government Analytical Services, Ministry of Agriculture and Rural Development
Mr I Alleyne	Barbados Chamber of Commerce and Industry
Mr L Chandler	National Council for Science and Technology, Ministry of Trade, Industry and Commerce
Ms H Farrell-Clarke	Pine Hill Dairy, Banks Holdings Limited
Mr M Gibbs-Taitt	Director General, Barbados Consumers Research Organisation Inc.
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Ms C Lewis, Technical Secretary	Barbados National Standards Institution (BNSI)

Comments from stakeholders throughout the CARICOM Member states were also solicited.

Acknowledgment

Acknowledgement is made to the CARICOM Regional Organization for Standards and Quality (CROSQ) for permission to adopt CRS 27: 2010.

Foreword

This CARICOM Regional Standard has been developed in an effort to establish quality requirements for fruit juices, fruit and vegetable drinks and fruit nectars, produced and or traded within CARICOM.

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 Alimentarius Commission, CODEX STAN 247-2005, General Standard for Fruit Juices and Nectars;
- b) United States Food and Drug Administration, Code of Federal Regulations, Title 21, Food and Drugs Regulations, Part 146.

FINAL DRAFT JAMAICAN STANDARD

1 Scope

This standard specifies requirements for juices and drinks derived from edible fruits and vegetables, fruit nectars, as well as non-carbonated beverages, containing no fruit or vegetable solids.

This standard does not apply to juices, drinks and nectars that are incorporated into carbonated beverages, sold as syrups or cordials that contain nutritive sweeteners in excess of 30 % by weight or sold to a manufacturer for further 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.

AOAC Official Method 940.26, Final Action, Ash of Fruits and Fruit Products

AOAC Official Method 967.21, 1968, Ascorbic Acid in Vitamin Preparations and Juices, 2, 6-Dichloroindophenol Titrimetric Method

AOAC Official Method 981.09, 1983, Carbon Stable Isotop Ratio of Apple Juice Mass Spectrometric Method

AOAC Official Method 983.17, 1983, Solids (Soluble) in Citrus Fruit Juices Refractometer Method

AOAC Official Method 986.13, 1989, Quinic, Malic, and Citric Acids in Cranberry Juice Cocktail and Apple Juice Liquid Chromatographic Method

AOAC Official Method 990.28, 1994, Sulfites in Foods Optimized Monier-Williams Method

AOAC Official Method 993.05, 1993, L-Malic/Total Malic Acid Ratio in Apple Juice Liquid Chromatographic Method (Total Malic Acid) Enzymatic Method (L-Malic Acid)

AOAC Official Method 994.11, 1994, Benzoic Acid in Orange Juice Liquid Chromatographic Method

AOAC Official Method 995.06, 1995, D-Malic Acid in Apple Juice Liquid Chromatographic Method

AOAC Official Method 995.17, 1995, Beet Sugar in Fruit Juices Site Specific Natural Isotope Fractionation-Nuclear Magnetic Resonance (SNIF-NMR®) Method

CAC/GL 1-1979, Rev. 1-1991, CODEX General Guidelines on Claims

CAC/GL 2- 1985, Rev. 1-1993 CODEX Guidelines on Nutrition Labelling

CAC/GL 21-1997, CODEX Principles for the Establishment and Application of Microbiological Criteria for Foods

CAC/GL 23-1997 CODEX Guidelines for Use of Nutrition Claims

CODEX General Standard for the Labelling of Prepackaged Foods

CODEX Recommended International Code of Practice – General Principles of Food Hygiene

CODEX STAN 192-1995, CODEX General Standard for Food Additives

CODEX STAN 212-1999 Amendment 1-2001, CODEX Standard for Sugars

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CARICOM Regional Code of Practice for Food Hygiene

CARICOM Regional Standard for the Labelling of Prepackaged Foods

Guidelines for Drinking Water Quality, World Health Organization (Volumes 1 and 2)

IFU Method No 1 (1989) Determination of Relative Density (Pycnometer Method)

IFU Method No. 1A, Relative Density (Method using Density Meter)

IFU Method No. 3, (1968), Determination of Titratable Acidity

IFU method No. 7A (2000), Determination of Total Sulphurous Acid

IFU Method No. 8 (1991), Determination of Soluble Solids (Indirect Method by Refractometry)

IFU Method No. 9 (1989), Determination of Ash

IFU Method No. 11 (1968/1989), Determination of pH Value

IFU Method No. 17 & 17a (1995), Determination of ascorbic acid by HPLC

IFU Method No. 18 (1974), Fermentation Test (Screening Test for the Presence of Preservatives)

IFU Method No. 21 (1985), Determination of L-Malic Acid, Enzymatic

IFU Method No. 22 (1985), Determination of Citric Acid, (enzymatic)

IFU Method No. 26 (1964/1996), Determination of Pectin

IFU Method No. 28 (1991), Determination of Total Nitrogen

IFU Method No. 30 (1984), Determination of Formol Number

IFU Method No. 33 (1984), Determination of Sodium, Potassium, Calcium and Magnesium

IFU Method No. 37 (1968), Determination of Chloride

IFU Method No. 42 (1976), Determination of Carbone Dioxide

IFU Method No. 45b (2005), Determination of Essential Oils (Bromate Method)

IFU Method No. 49 (1983), Determination of Proline

IFU Method No. 50 (1983), Determination of Phosphate

IFU Method No. 52 (1983/1996), Determination of Alcohol, Enzymatic

IFU Method No. 53 (1983/1996), Determination of Lactid Acid, Enzymatic

IFU Method No. 54 (1984), Determination of D-Isocitric Acid, Enzymatic

IFU Method No. 55 (1985), Determination of Glucose and Fructose, Enzymatic

IFU Method No. 56 (1985/1998), Determination of Sucrose, Enzymatic

IFU Method No. 57 (1989), Determination of Free Amino Acids

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IFU Method No. 58 (1991), Determination of Hesperidin and Naringin, HPLC

IFU Method No. 60 (1991/1998), Determination of Centrifugable Pulp

IFU Method No. 61 (1991), Determination of Total Dry Matter

IFU Method No. 62 (1995), D-Sorbitol (Enzymatic)

IFU Method No. 63 (1995), Preservatives (HPLC)

IFU Method No. 64 (1995), D-malic Acid (Enzymatic)

IFU Method No. 65 (1995), Tartaric Acid in Grape Juice (HPLC)

IFU Method No. 66 (1996), Acetic Acid (Enzymatic Method)

IFU Method No. 67 (1996), Determination of Sugars and Sorbitol (HPLC)

IFU Method No. 69 (1996), Determination of Hydroxymethylfurfural (HPLC)

IFU Method No. 71 (1998), Anthocyanins by HPLC

IFU Method No. 72 (1998), Fumaric Acid (HPLC)

IFU Method No. 73, Detection of Starch in Fruit Juices

IFU Method No. 76 (2001), Determination of D-Gluconic Acid in Grape Juice (Enzymatic)

IFU Method No. 77 (2001), Determination of Glycerol in Grape Juice (Enzymatic)

IFU Recommendation No.4 (October 2000), Determination of Sugar

ISO 750:1998, Fruit and vegetable products -- Determination of titratable acidity

ISO 1842:1991, Fruit and vegetable products -- Determination of pH

ISO 1955:1982, Citrus fruits and derived products -- Determination of essential oils content (Reference method)

ISO 2173: 2003, Fruit and vegetable products -- Determination of soluble solids -- Refractometric method

ISO 3634:1979, Vegetable products -- Determination of chloride content

ISO 5518:1978, Fruits, vegetables and derived products -- Determination of benzoic acid content -- Spectrophotometric method (2007 version) (the 1978 version has been superseded)

ISO 5519: 1978, Fruits, vegetables and derived products -- Determination of sorbic acid content (2008 version) (the 1978 version has been superseded)

ISO 5522:1981, Fruits, vegetables and derived products -- Determination of total sulphur dioxide content

ISO 5523:1981, Liquid fruit and vegetable products -- Determination of sulphur dioxide content (Routine method)

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ISO 6557-1: 1986, Fruits, vegetables and derived products -- Determination of ascorbic acid -- Part 1: Reference method

ISO 6557-2: 1984, Fruits, vegetables and derived products -- Determination of ascorbic acid content -- Part 2: Routine methods

ISO 6558-2:1992, Fruits, vegetables and derived products -- Determination of carotene content -- Part 2: Routine methods

ISO 6560: 1983, Fruit and vegetable products -- Determination of benzoic acid content (benzoic acid contents greater than 200 mg per litre or per kilogram) -- Molecular absorption spectrometric method

ISO 7466:1986, Fruit and vegetable products -- Determination of 5-hydroxymethylfurfural (5-HMF) content

3 Terms and definitions

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

3.1

aseptic packing

product, which has first been rendered commercially sterile, is packaged, under aseptic conditions, in a sterile container, which is then hermetically sealed

3.2

authenticity

maintenance in the product of the essential physical, chemical, organoleptical and nutritional characteristics of the fruit or vegetable from which the product is made

3.3

Brix

% of soluble solids of a liquid as determined by a refractometer calibrated at 20 °C and read as 'degrees Brix' on the International Sucrose Scale

NOTE The reading is not corrected for acidity and corrected for temperature to the equivalent at 20 °C.

3.4

canned

product has been packaged in hermetically sealed rigid containers and has undergone a thermal treatment, which is adequate to make the product shelf-stable under ambient storage conditions

3.5

commercially sterile

product has been subjected to a thermal or other physical process, which prevents the survival of viable micro-organisms

3.6

concentrated fruit or vegetable juice

product that complies with the definition of fruit or vegetable juice, except that water has been physically removed in an amount sufficient to increase the Brix level to a value at least 50 % greater than the Brix value for reconstituted juice from the same fruit or from the same vegetable (see Annex B)

3.7

concentrated fruit purée (for use in the manufacture of fruit juices and nectars)

product obtained by the physical removal of water from the fruit purée in an amount sufficient to increase the Brix level to a value at least 50 % greater than the Brix value established for reconstituted juice from the same fruit (see Annex B)

3.8

concentrated vegetable purée (for use in the manufacture of vegetable juices)

product obtained by the physical removal of water from the vegetable purée in an amount sufficient to increase the Brix level to a value at least 50 % greater than the Brix value established for reconstituted juice from the same vegetable (see Annex B)

3.9

fruit drink

liquid food derived from the fruit with no less than 10 % of soluble solids

3.10

fruit and vegetable drink

liquid food derived from fruit and vegetable with no less than 10 % soluble solids

3.11

fruit nectar

unfermented but fermentable product obtained by adding water with or without the addition of sugars as defined in 5.2.1.2.1, honey and or syrups as described in 5.2.1.2.2, and or food additive sweeteners as listed in the General Standard for Food Additives (GSFA) to products derived from fruits as defined in 4.1 to 4.6 or to a mixture of those products.

3.12

fruit or vegetable flavoured drink

liquid food having the characteristic flavour of a named fruit or vegetable and contains less than 10 % soluble solids

NOTE Natural and or artificial flavours which provide the characterizing flavour are permitted.

3.13

fruit or vegetable juice

unfermented but fermentable liquid derived from the edible parts of matured fresh fruit or vegetable

3.14

fruit purée (for use in the manufacture of fruit juices and nectars)

unfermented but fermentable product obtained by suitable processes, such as by sieving, grinding or milling the edible part of the whole or peeled fruit without removing the juice.

3.15

mixed fruit nectar

fruit nectar obtained from two or more different kinds of fruit

3.16

mixed juice

juice obtained by blending two or more juices, or juices and purées from different kinds of fruit or vegetable

3.17

percent juice

% of the total soluble contents of the juice derived from fruit and or vegetable

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3.18

potable water

water fit for human consumption as established in the latest edition of the "Guidelines for Drinking Water Quality" of the World Health Organization (Volumes 1 and 2) or established by national legislation which shall take precedence

3.19

preserved by physical means

product treated in one of the following ways:

- a) canned;
- b) subjected to aseptic packing;
- c) blanched and frozen;
- d) pasteurized and refrigerated; or
- e) dehydrated

3.20

reconstituted (from concentrate)

product prepared by adding potable water and other permitted ingredients to a concentrated fruit or vegetable juice

3.21

single juice

juice obtained from one kind of fruit or vegetable

3.22

vegetable drink

liquid food derived from vegetable with no less than 10 % of soluble solids

3.23

vegetable purée (for use in the manufacture of vegetable juices)

unfermented but fermentable product obtained by suitable processes such as by sieving, grinding or milling the edible part of the whole or peeled vegetables without removing the juice

3.24

water-extracted fruit or vegetable juice

product obtained by diffusion with water of:

- a) pulpy whole fruit or comminuted vegetables, whose juice cannot be extracted by any physical means; or
- b) dehydrated whole fruit or vegetable

4 Product designations

4.1 Fruit or vegetable juice

4.1.1 Juices shall be processed without pips, seeds and peel.

4.1.2 Some parts or components of pips, seeds and peel, which cannot be removed by Good Manufacturing Practices (GMP), shall be acceptable.

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4.1.3 Juice shall be prepared using processes which maintain the essential physical, chemical, organoleptic and nutritional characteristics of the juice of the fruit or vegetable from which it is derived.

4.1.4 Juice may be cloudy or clear and may have restored aromatic substances and volatile flavour components.

4.1.5 Where juice contains restored aromatic substances and volatile flavour components, these shall be obtained by suitable physical means and shall be recovered from the same kind of fruit or vegetable.

NOTE 1 Pulp and cells obtained by suitable physical means, from the same kind of fruit or vegetable, may be added.

NOTE 2 For citrus fruits, pulp or cells are the juice sacs obtained from the endocarp

4.1.6 The following market presentations of juice are permitted:

- a) fruit or vegetable juice directly expressed by mechanical extraction processes; and
- b) fruit or vegetable juice from concentrate by the process of reconstituting with potable water.

4.2 Concentrated fruit or vegetable juice

4.2.1 In the production of juice that is to be concentrated, suitable processes shall be used and may be combined with simultaneous diffusion of the pulp cells or pulp by water, provided that the water-extracted soluble solids are added in-line to the primary juice, before the concentration procedure.

4.2.2 Juice concentrates may have restored aromatic substances and volatile flavour components.

4.2.3 Where juice concentrates contain restored aromatic substances and volatile flavour components, these shall be obtained by suitable physical means and shall be recovered from the same kind of fruit or vegetable.

NOTE Pulp and cells obtained from the same kind of fruit or vegetable may be added.

4.3 Water-extracted fruit or vegetable juice

4.3.1 Water-extracted fruit or vegetable juices may be concentrated and reconstituted.

4.3.2 The solids content of the finished product shall meet the minimum Brix level for reconstituted juice (see Annex B).

4.4 Purées

4.4.1 Fruit purée for use in the manufacture of fruit juices and nectars

4.4.1.1 Fruit used in the manufacture of purées shall be sound, appropriately mature, and fresh or preserved by physical means or by treatments applied in accordance with the applicable provisions of the CODEX Alimentarius Commission.

4.4.1.2 Fruit purées may have restored aromatic substances and volatile flavour components.

4.4.1.3 Where fruit purées contain restored aromatic substances and volatile flavour components, these shall be obtained by suitable physical means and shall be recovered from the same kind of fruit or vegetable.

NOTE Pulp and cells obtained by suitable physical means from the same kind of fruit may be added.

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4.4.2 Vegetable purée for use in the manufacture of vegetable juices

4.4.2.1 Vegetables used in the manufacture of purées shall be sound, appropriately mature, and fresh or preserved by physical means or by treatments applied in accordance with the applicable provisions of the CODEX Alimentarius Commission.

4.4.2.2 Vegetable purée may have restored aromatic substances and volatile flavour components.

4.4.2.3 Where vegetable purées contain restored aromatic substances and volatile flavour components, these shall be obtained by suitable physical means recovered from the same kind of vegetable pulp and cells.

4.5 Concentrated purées

4.5.1 Concentrated fruit purée for use in the manufacture of fruit juices and nectars

4.5.1.1 Concentrated fruit purée may have restored aromatic substances and volatile flavour components.

4.5.1.2 Where concentrated fruit purées contain restored aromatic substances and volatile flavour components, these shall be obtained by suitable physical means and shall be recovered from the same kind of fruit.

4.5.2 Concentrated vegetable purée for use in the manufacture of vegetable juices

Concentrated vegetable purée for use in the manufacture of vegetable juices shall be obtained as described in 3.8.

4.6 Fruit nectar

4.6.1 Fruit nectar may contain aromatic substances, volatile flavour components, pulp and cells.

4.6.2 Where fruit nectar contains aromatic substances, volatile flavour components, pulp and cells, these shall be recovered from the same kind of fruit and obtained by suitable physical means.

4.6.3 Fruit nectar shall meet the requirements defined for fruit nectars in Annex B.

4.7 Species

4.7.1 The species indicated as the botanical name in Annexes B and C shall be used in the preparation of fruit and vegetable juices, fruit and vegetable purées and fruit nectars bearing the product name for the applicable fruit.

4.7.2 For fruit and vegetable species not included in the Annex B and C, the correct botanical or common name shall apply.

5 Requirements

5.1 General

5.1.1 Fruits or vegetables intended for use in a product shall be inspected, washed and sorted before processing.

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5.1.2 Unsound, unripe, inferior or defective fruits and vegetables shall be removed and kept separate from those selected for processing.

5.2 Composition and quality

5.2.1 Composition

5.2.1.1 Basic ingredients

5.2.1.1.1 The Brix level of directly expressed fruit or vegetable juices shall be the Brix as expressed from the fruit and vegetable, and the soluble solids content of the single strength juice shall not be modified, except by blending with the juice of the same kind of fruit or vegetable.

5.2.1.1.2 Reconstitution of concentrated fruit or vegetable juice shall be in accordance with the minimum Brix level in Annex B, excluding the solids of any added optional ingredients and additives.

5.2.1.1.3 Where no Brix level is specified in Annex B, or in the case of vegetables, minimum Brix shall be calculated on the basis of the soluble solids content of the single strength juice.

5.2.1.1.4 Potable water shall be used in the reconstitution of juices and nectars.

5.2.1.2 Other permitted ingredients

5.2.1.2.1 Sugars with less than 2 % moisture as defined in the CODEX STAN 212-1999 Amendment 1-2001, CODEX Standard for Sugars is allowed in fruit and vegetable juice.

EXAMPLE sucrose (white sugar or mill sugar), dextrose anhydrous, glucose, fructose

5.2.1.2.2 Syrups as defined in the CODEX Standard for Sugars, liquid sucrose, invert sugar solution, invert sugar syrup, fructose syrup, liquid cane sugar, isoglucose and high fructose syrup are allowed only in fruit or vegetable juice from concentrate, concentrated fruit or vegetable juices, concentrated fruit or vegetable purée and fruit nectars;

NOTE 1 5.2.1.2.1 and 5.2.1.2.2 are applicable only to products intended for sale to the consumer or for catering purposes.

NOTE 2 The addition of both sugars defined in 5.2.1.2.1 and 5.2.1.2.2 and acidifying agents as listed in the General Standard for Food Additives (GSFA) to the same fruit or vegetable juice is prohibited.

5.2.1.2.3 Honey and or sugars derived from fruits may be added only to fruit nectars.

5.2.1.2.4 Lemon juice or lime juice or both is permitted for acidification purposes at levels of up to 3 g/l anhydrous citric acid equivalent, to unsweetened juices. Lemon juice or lime juice or both is permitted up to 5 g/l anhydrous citric acid equivalent to fruit nectars.

5.2.1.2.5 Juice from mandarine, tangerine or Portugal and or their hybrids may be added to orange juice in an amount not to exceed 10 % of their soluble solids in the total soluble solids of the orange juice.

5.2.1.2.6 Salt, spices and aromatic herbs and their natural extracts may be added to tomato and vegetable juices.

5.2.1.2.7 For the purposes of product fortification, when permitted by national legislation, essential nutrients such as vitamins and minerals may be added to products described in 4.1. Such additions shall comply with the most recent versions of relevant CODEX Alimentarius Commission standards.

5.2.1.2.8 Non-nutritive sweeteners approved for use in the most recent version of the CODEX General Standard for Food Additives (GSFA) may be used in fruit or vegetable drinks, as specified in the GSFA.

5.2.2 Quality criteria

5.2.2.1 Fruit and vegetable juices and fruit nectars shall have the characteristic colour, aroma and flavour of juice from the same kind of fruit or vegetable from which it is made.

5.2.2.2 The fruit or vegetable shall retain no more water from washing, steaming or other preparatory operations than technologically unavoidable.

5.3 Verification of composition, quality and authenticity

Fruit and vegetable juices and fruit nectars should be subject to testing for authenticity, composition, and quality where applicable and where required. The analytical methods used should be as specified in Annex A.

6 Food additives

6.1 Food additives listed in the CODEX General Standard for Food Additives (GSFA) in Food Categories 14.1.2.1 (Fruit juice), 14.1.2.3 (Concentrates for fruit juice), 14.1.3.1 (Fruit nectar) and 14.1.3.3 (Concentrates for fruit nectar) may be used in foods subject to this Standard. GSFA-approved food additives may be used in related products not listed above.

6.2 Approved food additives shall conform to the specifications for identity and purity provided in the most recent revision of the compendium of Food Additive Specifications issued by the FAO/WHO Expert Committee on Food Additives.

7 Processing aids

7.1 Processing aids listed in Table 1 may be used in the production of foods subject to this standard.

7.2 Processing aids shall be used as specified in Table 1 and or as limited by GMP.

Table 1 — Approved processing aids

Function	Substance
Antifoaming agent	Polydimethylsiloxane ^a
Clarifying agents	Adsorbent clays (bleaching, natural or activated earths)
Filtration aids	Adsorbent resins
Flocculating agents	Activated carbon (only from plants)
	Bentonite
	Calcium hydroxide ^b
	Cellulose
	Chitosan
	Colloidal silica
	Diatomaceous earth

	Gelatin (from skin collagen)
	Ion exchange resins (cation and anion)
	Kaolin
	Perlite
	Polyvinylpyrrolidone
	Potassium tartrate ^b
	Precipitated calcium carbonate ^b
	Rice hulls
	Silicasol
	Sulphur dioxide ^{b,c}
	Tannin
Enzyme preparations	Pectinases (for breakdown of pectin), Proteinases (for breakdown of proteins), Amylases (for breakdown of starch) and, Cellulases (limited use to facilitate disruption of cell walls)
Packing gas	Nitrogen
	Carbon dioxide
^a 10mg/l is the maximum residue limit of the compound allowed in the final product ^b Only in grape juice ^c 10 mg/l (as residual SO ₂)	

8 Contaminants

8.1 Pesticide Residues

The products covered by the provisions of this Standard shall comply with maximum residue limits (MRLs) for pesticides as established by the CODEX Alimentarius Commission for these products, where no National Regulation exists.

8.2 Other Contaminants

The products covered by the provisions of this Standard shall comply with the maximum residue limits (MRLs) for contaminants as established by the CODEX Alimentarius Commission for these products, where no national regulations exist.

9 Hygiene

9.1 It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the most recent versions of the CARICOM Regional Code of Practice for Food Hygiene and the CODEX Recommended International Code of Practice – General Principles of Food Hygiene, and other relevant CODEX texts.

9.2 The products should comply with microbiological criteria established in accordance with the CODEX Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

10 Packaging

10.1 Retail containers shall be made of non-toxic materials that will not contaminate the product or affect its colour, aroma, flavour or consistency, and shall be designed to withstand stresses that may occur during packing, handling, transport and storage.

10.2 Only packaging materials that have been shown to resist deterioration or corrosion over a period of time exceeding the length of the shelf-life of the products shall be used.

10.3 All retail containers shall be protected during transport by suitable shipping cartons or containers.

10.4 Where metal cans are used as retail containers, their internal surface shall be compatible with the product, and if lacquered or coated, shall not release components of the lacquer or coating into the product during processing, packing, storage or transport.

10.4.1 The exterior surface of the can shall be free from dents, rust, perforation and seam distortion.

10.4.2 The can shall bear no evidence of leaking, panelling or swelling.

11 Labelling

11.1 Retail containers

11.1.1 Labelling on retail containers shall be in the official language(s) of the country in which the product is to be sold.

11.1.2 Information presented in more than one language shall have clear separations between each language.

11.1.3 Labelling on retail containers shall comply with the requirements of the most recent versions of the CARICOM Regional Standard for the Labelling of Prepackaged Foods and the CODEX General Standard for the Labelling of Prepackaged Foods.

11.1.4 Additionally, labels destined for the final consumer shall contain the name of the product as specified in the provisions below. The fruit or vegetable name shall be placed in the product name as indicated below, according to the definitions in 3. These names shall only be used if the product conforms to the requirements specified in this standard.

- a) for fruit and vegetable juice, the name of the product shall be “ ____ juice” or “juice of ____”;
- b) for concentrated fruit or vegetable juice, the name of the product shall be “concentrated ____ juice” or “ ____ juice concentrate”;
- c) for water-extracted juice, the name of the product shall be “water extracted ____ juice” or “water extracted juice of ____”;
- d) for purée, the name of the product shall be “ ____ purée” or “purée of ____”;
- e) for concentrated purée, the name of the product shall be “concentrated ____ purée” or “ ____ purée concentrated”;
- f) for fruit nectar, the name of the product shall be “ ____ nectar” or “nectar of ____”;
- g) in the case of juice products manufactured from two or more fruits or vegetables, the product name shall include the names of the fruit or vegetable juices comprising the mixture in

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descending order of proportion by weight (m/m) or the words “___ juice blend”, “a ___ juice mixture”, “mixed ___ juice” or other similar wording;

- h) for fruit or vegetable drink, the name of the product shall be “___ drink” or “___ and ___ drink”, where a mixture of fruits and vegetables is used;
- i) for fruit and vegetable juice and fruit nectar, and mixtures thereof, if the product contains or is prepared from concentrated juice and water or the product is prepared from juice from concentrate and directly expressed juice or nectar, the words “from concentrate” or “reconstituted” shall be entered in conjunction with or close to the product name, standing out well from any background, in clearly visible characters, not less than ½ the height of the letters in the name of the juice; and
- j) for fruit or vegetable flavoured drink, the name of the product shall be “___ flavoured drink.”

11.1.4.1 When food additive sweeteners are employed as substitutes for sugars in fruit or vegetable flavoured drinks, the statement “with sweetener(s),” shall be included in conjunction with or in close proximity to the product name.

11.1.5 The following additional specific provisions shall also apply.

11.1.5.1 For products specified in 4.1 to 4.6, where one or more of the optional sugar or syrup ingredients as specified in 5.2.1.2.1 and 5.2.1.2.2 are added, the product name shall include the statement, “sugar(s) added” after the fruit or vegetable juice or mixed juice’s name.

11.1.5.2 When food additive sweeteners are employed as substitutes for sugars in fruit nectars and mixed fruit nectars, the statement, “with sweetener(s),” shall be included in conjunction with or in close proximity to the product name.

11.1.5.3 Where concentrated fruit juice, concentrated fruit purée, concentrated fruit nectar or mixed concentrated fruit juice or nectar or purée is to be reconstituted before consumption as fruit juice, fruit purée, fruit nectar or mixed fruit juices or nectars or purées, the label shall bear appropriate directions for reconstitution on a v/v basis with water to the applicable Brix value as specified in Annex B for reconstituted juice.

11.1.5.4 Distinct varietal denominations may be used in conjunction with the common fruit or vegetable names on the label where such use is not misleading.

11.1.5.5 Fruit nectars and mixed fruit nectars shall be prominently labelled with a declaration of “juice content ___%” with the blank being filled with the percentage of purée and or fruit juice computed on a v/v basis. The words “juice content ___%” shall appear in close proximity to the name of the product in clearly visible characters, not less than ½ the height of the letters in the name of the juice.

11.1.5.6 When L-ascorbic acid is added, it may be described in the list of ingredients as:

- a) “L-ascorbic acid” if the total concentration of natural and added L-ascorbic acid is less than 250 mg/l; or
- b) “Added Vitamin C” where the total concentration of natural and added L-ascorbic acid is equal to or more than 250 mg/l.

NOTE An ingredient declaration of “ascorbic acid” when used as an antioxidant does not by itself constitute a “Vitamin C” claim.

11.1.5.7 Any added essential nutrients declaration shall be labelled in accordance with the CODEX General Guidelines on Claims (CAC/GL 1-1979, Rev. 1-1991), CODEX Guidelines on Nutrition Labelling (CAC/GL 2- 1985, Rev. 1-1993) and the CODEX Guidelines for Use of Nutrition Claims (CAC/GL 23-1997).

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11.1.5.8 For fruit nectars in which a food additive sweetener has been added in order to replace wholly or in part the added sugars or other sugars or syrups, including honey and or sugars derived from fruits as listed in 5.2.1.2.1 and 5.2.1.2.2, any nutrient content claims related to the reduction in sugars should conform to the CODEX General Guidelines on Claims (CAC/GL 1-1979, Rev. 1-1991), CODEX Guidelines for Use of Nutrition Claims (CAC/GL 23-1997) and CODEX Guidelines on Nutrition Labelling (CAC/GL 2-1985, Rev 1-1993).

11.1.5.9 Pictorial representations of fruits or vegetables on the label shall be allowed provided the product contains ingredients derived from those fruits or vegetables.

11.1.5.10 Where the product contains added carbon dioxide the term “carbonated” or “sparkling” shall appear on the label near the name of the product.

11.1.5.11 Where tomato or vegetable juice contains spices and or aromatic herbs in accordance with 5.2.2.6, the term “spiced” and or the common name of the aromatic herb shall appear on the label near the name of the juice.

11.1.5.12 Pulp and cells added to juice, at a level higher than that normally contained in the juice, shall be declared in the list of ingredients. Aromatic substances, volatile flavour components, pulp and cells added to nectar over that normally contained in the juice shall be declared in the list of ingredients.

11.2 Non-retail containers

11.2.1 Information for non-retail containers, not intended for sale to final consumers, shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, net contents and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. For tankers the information may appear exclusively in the accompanying documents.

NOTE Lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

Annex A (normative)

Methods of analysis and sampling

Table A.1 — Methods of analysis endorsed

Provision	Method	Principle	Type	Status
Ascorbic acid-L (additives)	IFU Method No 17a (1995)	HPLC	II	E
Ascorbic acid-L (additives)	ISO 6557-1: 1986	Fluorescence spectrometry	IV	E
Ascorbic acid-L (additives)	AOAC 967.21 IFU Method No 17 ISO 6557-2: 1984	Indophenol method	III	E
Benzoic acid and its salts	ISO 5518:1978 ISO 6560: 1983	Spectrometry	III	E
Benzoic acid and its salts; sorbic acid and its salts	IFU Method No 63 (1995) NMKL 124 (1997)	HPLC	II	E
Carbon dioxide (additives and processing aids)	IFU Method No 42 (1976)	Titrimetry (back-titration after precipitation)	IV	E
Cellobiose	IFU Recommendation No.4 October 2000	Capillary gas chromatography	IV	E
Citric acid ^a (additives)	AOAC 986.13	HPLC	II	E
Citric acid ^a (additives)	EN 1137: 1994 IFU Method No 22 (1985)	Enzymatic determination	III	E
Glucose and fructose (permitted ingredients)	EN 12630 IFU Method No 67 (1996) NMKL 148 (1993)	HPLC	III	E
Glucose-D and fructose-D (permitted ingredients)	EN 1140 IFU Method No 55 (1985)	Enzymatic determination	II	E
Malic acid (additives)	AOAC 993.05	Enzymatic determination and HPLC	III	E
Malic acid-D	EN 12138 IFU Method No 64 (1995)	Enzymatic determination	II	E
Malic acid-D in apple juice	AOAC 995.06	HPLC	II	E
Malic acid-L	EN 1138 (1994) IFU Method No 21 (1985)	Enzymatic determination	II	E
Pectin (additives)	IFU Method No 26 (1964/1996)	Precipitation/photometry	I	E
Preservatives in fruit juices (sorbic acid and its salts)	ISO 5519: 1978	Spectrometry	III	E
Saccharin	NMKL 122 (1997)	Liquid chromatography	II	E
Soluble solids	AOAC 983.17 EN 12143 (1996) IFU Method No 8 (1991)	Indirect by refractometry	I	E

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Provision	Method	Principle	Type	Status
	ISO 2173: 2003			
Sucrose (permitted ingredients)	EN 12146 (1996) IFU Method No 56 (1985/1998)	Enzymatic determination	III	E
Sucrose (permitted ingredients)	EN 12630 IFU Method No 67 (1996) NMKL 148 (1993)	HPLC	II	E
Sulphur dioxide (additives)	Optimized Monier Williams AOAC 990.28 IFU Method No. 7A (2000) NMKL 132 (1989)	Titrimetry after distillation	II	E
Tartaric acid in grape juice (additives)	EN 12137 (1997) IFU Method No 65 (1995)	HPLC	II	E
Total nitrogen	EN 12135 (1997) IFU Method No 28 (1991)	Digestion/titration	I	E
^a All juices except citrus-based juices				

Table A.2 — Methods of analysis temporarily endorsed

Provision	Method	Principle	Type	Status
Acetic acid	EN 12632 or IFU Method No 66 (1996)	Enzymatic determination		TE
Alcohol (ethanol)	IFU Method No 52 (1983/1996)	Enzymatic determination		TE
Anthocyanins	IFU Method No 71 (1998)	HPLC		TE
Ash in fruit products	AOAC 940.26 EN 1135 (1994) IFU Method No 9 (1989)	Gravimetry		TE
Beet sugar in fruit juices	AOAC 995.17	Deuterium NMR		TE
Benzoic acid as a marker in orange juice	AOAC 994.11	HPLC		TE
Determination of C13/C12 ratio of ethanol derived from fruit juices	JAOAC 79, No.1, 1996, 62-72	Stable isotope mass spectrometry		TE
Carbon stable isotope ratio of apple juice	AOAC 981.09 JAOAC 64, 85 (1981)	Stable isotope mass spectrometry		TE
Carbon stable isotope ratio of orange juice	AOAC 982.21)	Stable isotope mass spectrometry		TE
Carotenoid, Total/individual groups	EN 12136 (1997) IFU Method No59 (1991)	Precipitation/fractionation		TE
Carotenoids, Total	ISO 6558-2:1992	Column chromatographic separation and spectrometry		TE
Centrifugable pulp	EN 12134 IFU Method No 60 (1991/1998)	Centrifugation/% value		TE
Chloride (expressed as sodium chloride)	EN12133 IFU Method No 37 (1968)	Electrochemical titrimetry		TE

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Provision	Method	Principle	Type	Status
Chloride in vegetable juice	AOAC 971.27 (CODEX general method) ISO 3634:1979	Titration		TE
Essential oils	AOAC 968.20 IFU 45b	(Scott) distillation, titration		TE
Essential oils (in citrus fruit)	ISO 1955:1982	Distillation and direct reading of the volume		TE
Fermentability	IFU Method No 18 (1974)	Microbiological method		TE
Formol number	EN 1133 (1994) IFU Method No 30 (1984)	Potentiometric titration		TE
Free amino acids	EN 12742 IFU Method No 57 (1989)	Chromatography		TE
Fumaric acid	IFU Method No 72 (1998)	HPLC		TE
Glucose, fructose, sorbitol	EN 12630 IFU Method No 67 (1996) NMKL 148 (1993)	HPLC		TE
Gluconic acid	IFU Method No 76 (2001)	Enzymatic determination		TE
Glycerol	IFU Method No 77 (2001)	Enzymatic determination		TE
Hesperidin and naringin	EN 12148 (1996) IFU Method No 58 (1991)	HPLC		TE
HFCS & HIS in apple juice (permitted ingredients)	JAOAC 84, 486 (2001)	CAP GC Method		TE
Hydroxymethylfurfural	IFU Method No 69 (1996)	HPLC		TE
Hydroxymethylfurfural	ISO 7466:1986	Spectrometry		TE
Isocitric acid-D	EN 1139 IFU Method No 54 (1984)	Enzymatic determination		TE
Lactic acid- D and L	EN 12631 (1999) IFU Method No 53 (1983/1996)	Enzymatic determination		TE
L-malic/total malic acid ratio in apple juice	AOAC 993.05	Enzymatic determination and HPLC		TE
Naringin and neohesperidin in orange juice	AOAC 999.05	HPLC		TE
pH-value	EN 1132 (1994) IFU Method No 11 (1968/1989) ISO 1842:1991	Potentiometry		TE
Phosphorus or Phosphate	EN 1136 (1994) IFU Method No 50 (1983)	Photometric determination		TE
Proline	EN 1141 (1994) IFU Method No 49 (1983)	Photometry		TE
Quinic acid in cranberry juice cocktail and apple juice	AOAC 986.13	HPLC		TE
Recoverable oil	AOAC 968.20 IFU Method No 45b	Distillation and titration - Scott method		TE
Relative density	EN 1131 (1993)	Pycnometry		TE

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Provision	Method	Principle	Type	Status
	IFU Method No 1 (1989) IFU Method No General sheet (1971)			
Relative density	IFU Method No 1A	Densitometry		TE
Sodium, potassium, calcium, magnesium	EN 1134 (1994) IFU Method No 33 (1984)	Atomic Absorption Spectroscopy		TE
Sorbitol-D	IFU Method No 62 (1995)	Enzymatic determination		TE
Stable carbon isotope ratio in the pulp of fruit juices	ENV 13070 (1998) Analytica Chimica Acta 340 (1997)	Stable isotope mass spectrometry		TE
Stable carbon isotope ratio of sugars from fruit juices	ENV 12140 Analytica Chimica Acta.271 (1993)	Stable isotope mass spectrometry		TE
Stable hydrogen isotope ratio of water from fruit juices	ENV 12142 (1997)	Stable isotope mass spectrometry		TE
Stable oxygen isotope ratio in fruit juice water	ENV 12141(1997)	Stable isotope mass spectrometry		TE
Starch	AOAC925.38 IFU Method No 73	Precipitation		TE
Sugar -beet derived syrups in frozen concentrated orange juice $\delta^{18}O$ Measurements in water	AOAC 992.09	Oxygen isotope ratio analysis		TE
Titrateable acids, total	EN 12147 (1995) IFU Method No 3 (1968) ISO 750:1998	Titrimetry		TE
Total dry matter	EN 12145 (1996) IFU Method No 61 (1991)	Gravimetric determination		TE
Total solids	AOAC 985.26	Microwave oven drying		TE
Vitamin C	AOAC 967.22	Microfluorometry		TE
Vitamin C	CEN/TC275/WG9 N60	DNA		TE

Annex B (normative)

Minimum Brix level for reconstituted juice and reconstituted purée and minimum juice and or purée content for fruit nectars (% v/v) at 20 °C

B.1 Table B.1 provides the minimum Brix level for reconstituted juices and reconstituted purées, as well as the minimum juice and or puree content for fruit nectars (% v/v) at 20 °C.

NOTE For the purposes of the Standard the Brix is defined as the soluble solids content of the juice as determined by the method found in the Section on Methods of Analysis and Sampling.

Table B.1 — Minimum Brix level for reconstituted juice and purée and minimum juice and or purée content for fruit nectars (% v/v) at 20 °C

Botanical name	Fruit's common name (other local names may be added)	Minimum Brix level for reconstituted fruit juices and reconstituted purée	Minimum juice and or purée content (% v/v) for fruit nectars
<i>Actinidia deliciosa</i> (A. Chev.) C. F. Liang & A. R. Ferguson	Kiwi	(*) ^a	(*) ^a
<i>Anacardium occidentale</i> L.	Cashewapple	11.5	25.0
<i>Ananas comosus</i> (L.) Merrill <i>Ananas sativus</i> L. Schult. f.	Pineapple	12.8 ^{b,c}	40.0
<i>Annona muricata</i> L.	Soursop	14.5	25.0
<i>Annona squamosa</i> L.	Sugar Apple	14.5	25.0
<i>Averrhoa carambola</i> L.	Starfruit	7.5	25.0
<i>Carica papaya</i> L.	Papaya	(*) ^a	25.0
<i>Chrysophyllum cainito</i>	Star Apple	(*) ^a	(*) ^a
<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai var. <i>Lanatus</i>	Water Melon	8.0	40.0
<i>Citrus aurantifolia</i> (Christm.) (swingle)	Lime	8.0 ^b	50
<i>Citrus aurantium</i> L.	Sour Orange	(*) ^a	50.0
<i>Citrus limon</i> (L.) Burm. f. <i>Citrus limonum</i> Rissa	Lemon	8.0 ^b	50
<i>Citrus paradisi</i> , <i>Citrus grandis</i>	Sweetie grapefruit	10.0	50.0
<i>Citrus paradisi</i> Macfad	Grapefruit	10.0 ^b	50.0
<i>Citrus reticulata</i> Blanca	Mandarine or Tangerine	11.8 ^b	50.0
<i>Citrus sinensis</i> (L.)	Orange	11.8 – 11.2 ^b consistent with the application of national legislation of the importing country but not lower than 11.2 ^d	50.0
<i>Cocos nucifera</i> L. ^e	Coconut	5.0	25.0
<i>Cucumis melo</i> L.	Melon	8.0	35.0
<i>Cucumis melo</i> L. subsp. <i>melo</i> var.	Honeydew Melon	10.0	25.0

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Botanical name	Fruit's common name (other local names may be added)	Minimum Brix level for reconstituted fruit juices and reconstituted purée	Minimum juice and or purée content (% v/v) for fruit nectars
<i>inodorus H. Jacq</i>			
<i>Cucumis melo L. subsp. melo var. inodorus H. Jacq.</i>	Casaba Melon	7.5	25.0
<i>Cydonia oblonga Mill.</i>	Quince	11.2	25.0
<i>Diospyros khaki Thunb.</i>	Persimmon	(*) ^a	40.0
<i>Empetrum nigrum L.</i>	Crowberry	6.0	25.0
<i>Eriobotrya japonica</i>	Loquat	(*) ^a	(*) ^a
<i>Eugenia syriaca</i>	Guavaberry Birchberry	(*) ^a	(*) ^a
<i>Eugenia uniflora Rich.</i>	Suriname Cherry	6.0	25.0
<i>Ficus carica L.</i>	Fig	18.0	25.0
<i>Fortunella Swingle sp.</i>	Kumquat	(*) ^a	(*) ^a
<i>Fragaria x. ananassa Duchesne</i> (<i>Fragaria chiloensis Duchesne x Fragaria virginiana Duchesne</i>)	Strawberry	7.5	40.0
<i>Genipa americana</i>	Genipap	17.0	25.0
<i>Hippophae elaeagnaceae</i>	Sea Buckthorn	(*) ^a	25.0
<i>Hippophae rhamnoides L.</i>	Buckthornberry or Sallow-thornberry	6.0	25.0
<i>Litchi chinensis Sonn.</i>	Lychee	11.2	20.0
<i>Lycopersicon esculentum L.</i>	Tomato	5.0	50.0
<i>Malpighia sp. (Moc. & Sesse)</i>	Acerola (West Indian Cherry)	6.5	25.0
<i>Malus domestica Borkh.</i>	Apple	11.5 ^c	50.0
<i>Malus prunifolia (Willd.) Borkh. Malus sylvestris Mill.</i>	Crab Apple	15.4	25.0
<i>Mammea americana</i>	Mammee Apple	(*) ^a	(*) ^a
<i>Mangifera indica L</i>	Mango	13.5	25.0
<i>Morus sp.</i>	Mulberry	(*) ^a	30.0
<i>Musa species including M. acuminata and M. paradisiaca but excluding other plantains</i>	Banana	(*) ^a	25.0
<i>Passiflora edulis</i>	Yellow Passion Fruit	(*) ^a	(*) ^a
<i>Pasiflora edulis Sims. f. edulis Passiflora edulis Sims. f. Flavicarpa O. Def.</i>	Passionfruit	12 ³	25.0
<i>Phoenix dactylifera L.</i>	Date	18.5	25.0
<i>Pouteria sapota</i>	Sapote	(*) ^a	(*) ^a
<i>Prunus domestica L. subsp. domestica</i>	Plum	12.0	50.0
<i>Prunus armeniaca L.</i>	Apricot	11.5	40.0
<i>Prunus avium L.</i>	Sweet Cherry	20.0	25.0
<i>Prunus cerasus L.</i>	Sour Cherry	14.0	25.0
<i>Prunus cerasus L. cv. Stevnsbaer</i>	Stonesbaer	17.0	25.0
<i>Prunus domestica L. subsp. domestica</i>	Quetsche	12.0	25.0
<i>Prunus persica (L.) Batsch var. nucipersica (Suckow) c. K. Schneid.</i>	Nectarine	10.5	40.0

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Botanical name	Fruit's common name (other local names may be added)	Minimum Brix level for reconstituted fruit juices and reconstituted purée	Minimum juice and or purée content (% v/v) for fruit nectars
<i>Prunus persica</i> (L.) Batsch var. <i>persica</i>	Peach	10.5	40.0
<i>Prunus spinosa</i> .	Sloe	6.0	25.0
<i>Psidium guajava</i> L.	Guava	8.5	25.0
<i>Punica granatum</i> L.	Pomegranate	12.0	25.0
<i>Pyrus arbustifolia</i> (L.) Pers.	Aronia or Chokeberry	(*) ^a	(*) ^a
<i>Pyrus communis</i> L.	Pear	12.0	40.0
<i>Ribes nigrum</i> L.	Black Currant	11.0	30.0
<i>Ribes rubrum</i> L.	Red Currant	10.0	30.0
<i>Ribes rubrum</i> L.	White Currant	10.0	30.0
<i>Ribes uva-crispa</i>	Red Gooseberry	(*) ^a	30.0
<i>Ribes uva-crispa</i> L.	Gooseberry	7.5	30.0
<i>Ribes uva-crispa</i> L.	White Goosberry	(*) ^a	30.0
<i>Rosa canina</i> L.	Cynorrhodon	(*) ^a	40.0
<i>Rosa</i> sp. L.	Rosehip	9.0	40.0
<i>Rubus chamaemorus</i> L.	Cloudberry	9.0	30.0
<i>Rubus chamaemorus</i> L. <i>Morus hybrid</i>	Mulberry	(*) ^a	40.0
<i>Rubus fruitcosus</i> L.	Blackberry	9.0	30.0
<i>Rubus hispida</i> (of North America) <i>R. caesius</i> (of Europe)	Dewberry	10.0	25.0
<i>Rubus idaeus</i> L. <i>Rubus strigosus</i> Michx.	Red Raspberry	8.0	40.0
<i>Rubus loganobaccus</i> L. <i>H. Bailey</i>	Loganberry	10.5	25.0
<i>Rubus occidentalis</i> L.	Black Raspberry	11.1	25.0
<i>Rubus ursinus</i> Cham. & Schtdl.	Boysenberry	10.0	25.0
<i>Rubus vitifolius</i> x <i>Rubus idaeus</i> <i>Rubus baileyanis</i>	Youngberry	10.0	25.0
<i>Sambucus nigra</i> L. <i>Sambucus canadensis</i> .	Elderberry	10.5	50.0
<i>Solanum quitoense</i> Lam.	Lulo	(*) ^a	(*) ^a
<i>Sorbus aucuparia</i> L.	Rowanberry	11.0	30.0
<i>Sorbus domestica</i>	Sorb	(*) ^a	30.0
<i>Spondia lutea</i> L.	Cajá	10.0	25.0
<i>Spondias tuberosa</i> Arruda ex Kost.	Umbu	9.0	25.0
<i>Syzygiun jambosa</i>	Pome Apple	(*) ^a	(*) ^a
<i>Tamarindus indica</i>	Tamarind (Indian date)	13.0	Adequate content to reach a minimum acidity of 0.5
<i>Theobroma grandiflorum</i> L.	Cupuaçu	9.0	35.0
<i>Vaccinium macrocarpon</i> Aiton <i>Vaccinium oxycoccos</i> L.	Cranberry	7.5	30.0
<i>Vaccinium myrtillus</i> L. <i>Vaccinium corymbosum</i> L. <i>Vaccinium angustifolium</i>	Bilberry or Blueberry	10.0	40.0
<i>Vaccinium vitis-idaea</i> L.	Lingonberry	10.0	25.0

Botanical name	Fruit's common name (other local names may be added)	Minimum Brix level for reconstituted fruit juices and reconstituted purée	Minimum juice and or purée content (% v/v) for fruit nectars
<i>Vitis Vinifera L. or hybrids thereof</i> <i>Labrusca or hybrids thereof</i>	Grape	16.0	50.0
<p>a No data currently available. The minimum Brix level of the reconstituted juice shall be the Brix level as expressed from the fruit used to make the concentrate.</p> <p>b Acid corrected as determined by the method for total titratable acids in the Section on Methods of Analysis.</p> <p>c It is recognized that in different geographical areas, the Brix level may naturally differ from this value. In cases where the Brix level is consistently lower than this value, reconstituted juice of lower Brix from this origin introduced into international trade will be acceptable, provided it meets the authenticity methodology listed in the General Standard for Fruit Juices and Nectars and the level will not be below 10 ° Brix for pineapple juice and apple juice.</p> <p>d It is recognized that in different geographical areas, the Brix level may naturally differ from this range of values. In cases where the Brix level is consistently lower than this range of values, reconstituted juice of lower Brix from this origin introduced into international trade will be acceptable, provided it meets the authenticity methodology listed in the General Standard for Fruit Juices and Nectars and the level will not be below 10°Brix.</p> <p>e This product is 'coconut water' which is directly extracted from the coconut without expressing the coconut meat.</p> <p>NOTE If a juice is manufactured from a fruit not mentioned in the above list, it must, nevertheless, comply with all the provisions of the Standard, except that the minimum Brix level of the reconstituted juice shall be the Brix level as expressed from the fruit used to make the concentrate.</p>			

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Annex C (informative)

Botanical and common Caribbean names of plants and fruits

Table C.1 — Botanical and common Caribbean names of plants and fruits

Botanical Names	Common Names
<i>Ananas comosus</i>	Pineapple
<i>Annona muricata</i>	Soursop
<i>Apium graveolens</i>	Celery
<i>Averrhoa carambola</i>	Carambola, Five-fingers, Star fruit
<i>Beta vulgaris</i>	Beet, Beetroot
<i>Carica papaya</i>	Papaya, pawpaw
<i>Citrullus lanatus</i>	Watermelon
<i>Citrus limon</i>	Lemon
<i>Citrus paradisi</i>	Grapefruit
<i>Citrus reticulata</i>	Mandarin, Tangerine
<i>Citrus reticulata</i>	Portugal
<i>Citrus sinensis</i>	Orange
<i>Cucumis melo</i>	Melon (Honeydew)
<i>Cucumis sativus</i>	Cucumber
<i>Cucurbita pepo</i>	Pumpkin
<i>Daucus carota, ss sativus</i>	Carrot
<i>Hibiscus sabdariffa</i>	Sorrel, Roselle
<i>Lycopersicon esculentum.</i>	Tomato
<i>Malus pumila</i>	Apple
<i>Mango mangifera</i>	Mango
<i>Passiflora edulis</i>	Passion fruit
<i>Prunus cerasus, Pavium</i>	Cherry
<i>Prunus armeniaca</i>	Apricot
<i>Prunus persica</i>	Peach
<i>Psidium guava</i>	Guava
<i>Pyrus communis</i>	Pear
<i>Ribes nigrum</i>	Black Currant
<i>Syzygiun jambosa</i>	June Plum, Golden Apple, Pommecythere
<i>Tamarindus indica</i>	Tamarind
<i>Vitis vinifera</i>	Grape
<i>Zingiber officinale</i>	Ginger

End of document

Standards Council

The Standards Council is the controlling body of the Bureau of Standards and is responsible for the policy and general administration of the Bureau.

The Council is appointed by the Minister in the manner provided for in the Standards Acts, the Council appoints committees for specific purposes.

The Standards Act, 1968 sets out the duties of the Council and the steps to be followed for the formulation of a standard.

Preparation of standards document

The following is an outline of the procedure which must be followed in the preparation of documents:

1. The preparation of standards documents is undertaken upon the Standards Council's authorization. This may arise out of representations from national organizations or existing Bureau of Standards' Committees or Bureau staff. If the project is approved it is referred to the appropriate sectional committee or if none exists a new committee is formed, or the project is allotted to Bureau staff.
2. If necessary, when the final draft of a standard is ready, the Council authorizes an approach to the Minister in order to obtain the formal concurrence of any other Minister who may be responsible for any area which the standard affects.
3. With the approval of the Standards Council, the draft document is made available for general public comments. All interested parties, by means of notice in the Press, are invited to comment. In addition copies are forwarded to those known to be interested in the subject.
4. The Committee considers all the comments received and recommends a final document to the Standards Council.
5. The Standards Council recommends the document to the Minister for publication.
6. The Minister approves the recommendation of the Standards Council.
7. The declaration of the standard is gazetted and copies placed for sale.
8. On the recommendation of the Standards Council the Minister may declare a standard to be compulsory.
9. Amendments to and revisions of standards normally require the same procedure as is applied to the preparation of the original standard.

Overseas standards documents

The Bureau of Standards maintains a reference library which includes the standard of many overseas organizations. These standards can be inspected upon request.

The Bureau can supply on demand copies of standards produced by some national standards bodies and is the agency for the state of standards produced by International Organization for Standardization (ISO) members.

Application to use the reference library and to purchase Jamaican and other standards documents should be addressed to:

Bureau of Standards Jamaica
6 Winchester Road
P.O. Box 113
Kingston 10