



# **NATIONAL AGENCY FOR FOOD AND DRUG ADMINISTRATION AND CONTROL (NAFDAC)**

## **FRUIT JUICE AND NECTAR REGULATIONS 2019**

## **ARRANGEMENT OF REGULATIONS**

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### **Commencement:**

**In exercise of the powers conferred on the Governing Council of the National Agency for Food and Drug Administration and Control (NAFDAC) by Sections 5 and 30 of the NAFDAC Act Cap N1 LFN 2004 and Section 12 of the Food, Drugs and Related Products (Registration, Etc.) Act Cap F33 LFN 2004 and of all the powers enabling it in that behalf, THE GOVERNING COUNCIL OF THE NATIONAL AGENCY FOR FOOD AND DRUG ADMINISTRATION AND CONTROL with the approval of the Honourable Minister of Health hereby makes the following Regulations:-**

#### **1. Scope**

These Regulations shall apply to fruit juice and nectar products manufactured, imported, exported, advertised, sold distributed or used in Nigeria.

#### **2. Prohibition**

- (1) No fruit juice or nectar shall be manufactured, imported, exported, advertised, sold distributed or used in Nigeria, unless it has been registered in accordance with the provisions of these Regulations.
- (2) No person shall manufacture, import, export, advertise, sell, distribute or use any fruit juice or nectar which contains non-nutritive sweeteners without the approval of the Agency.
- (3) Fruit juice may contain sugar, invert sugar or dextrose and any food additives.
- (4) Fruits juice shall not contain non-nutritive sweeteners unless approved by the Agency.

#### **3. Definitions/Composition of fruit juices, nectar and fruit puree**

Definitions and compositions of fruit juices, nectar and fruit puree shall be as provided in Schedule "A" to these Regulations.

#### **4. Organoleptic Properties.**

The product shall have the characteristic colour, aroma and flavour of the fruit juice. The natural volatile juice components may be restored to any juice obtained from the same type of fruits from which natural volatile juice components have been removed.

#### **5. Use and limits of food additives**

The use and limits of any food additives in the manufacture of fruit juice and nectar shall be as approved by the Agency and as indicated in Schedule "D".

#### **6. Maximum Limits of contaminants**

The maximum limits of contaminants in fruit juices and nectars shall comply with the limits as provided in Schedule "E" to these Regulations.

#### **7. Labelling.**

- (1) Fruit juices and nectars shall be labelled in accordance with the Pre-packaged Food (Labelling) Regulations 2019.
- (2) The percentage fruit content present shall be so declared on the Ingredients list on the product label.

- (3) No labelling of drinks specified in these Regulations shall bear the word “fruit juice” unless the fruit content is as provided in Schedule C.
- (4) No labelling of drinks specified in these Regulations shall bear the word “fruit drink” unless the fruit juice content is not less than 5 percent.

**8. Name of fruit juice to indicate the nature**

- (1) The name of every fruit juice shall indicate the accurate nature,
- (2) Where a name has been established for the fruit juice in these Regulations, such a name shall be used,
- (3) Where no common name exists for the fruit juice, an appropriate descriptive name shall be used, provided that, no product shall be named fruit juice drink,
- (4) A coined or fanciful name may be used, provided the name is not misleading and is accompanied by an appropriate descriptive term,
- (5) In the case of a combination of two or more fruit juices, the name of the juices in the order of predominance by weight or the word “fruit” shall be declared on the package, and
- (6) In case of a single fruit juice or a combination of two or more fruit juices, any of which are made from concentrate(s), the words “from concentrate(s)”, shall follow the word “juice(s)” in the name(s) of such juice(s) when declared on the package.

**9. List of Ingredients.**

A complete list of ingredients used in preparing any fruit juice shall be declared on the label in descending order of the proportion present, except in the case of a dehydrated fruit juice intended to be reconstituted by the addition of an appropriate quantity of potable water, in which case, the ingredients may be listed in order of proportion in the reconstituted product, provided that the list of ingredients shall be headed by a statement such as “ingredients when reconstituted”.

**10. Penalty.**

- (1) Any person who contravenes any of the provisions of these Regulations shall be guilty of an offence and liable on conviction. In case of :
  - (a) an individual, to imprisonment for a term not exceeding one year or to a fine not exceeding N50,000 or to both such imprisonment and fine; and
  - (b) a body corporate, to a fine not exceeding N100, 000.
- (2) Where an offence under these Regulations is committed by a body corporate, firm or other association of individuals every:-
  - (a) director, manager, secretary or other similar officer of the body corporate; or
  - (b) partner or officer of the firm or
  - (c) trustee of the body concerned ;or
  - (d) person concerned in the management of the affairs of the association ;or
  - (e) person who was purporting to act in a capacity referred to in paragraphs (a) to (d) of this regulation, is severally guilty of that offence and liable to be proceeded against and punished for that offence in the same manner as if he had himself committed the offence, unless he proves that the act or omission constituting the offence took place without his knowledge, consent or connivance.

## 11. Forfeiture after conviction

- (1) A person convicted of an offence under these Regulations shall forfeit to the Federal Government-
  - (a) any asset or property constituting proceeds derived from or obtained, directly or indirectly, as a result of the offence;
  - (b) any of the person's property or instrumentalities used in any manner to commit or to facilitate the commission of the offence.
- (2) In this section, "**proceeds**" means any property derived or obtained, directly or indirectly, through the commission of the offence.

## 12. Interpretation

In these Regulations, unless the context otherwise requires;

**“Agency” means the National Agency for Food and Drug Administration and Control:**

**“Fruit juice”** means the unfermented but fermentable liquid obtained from the edible part of sound, appropriately mature and fresh fruit or of fruit maintained in sound condition by suitable means including post-harvest surface treatment applied in accordance with the applicable provision of Codex Alimentarius Commission.

**“Concentrated fruit juice”** means the product that complies with the definition given in Regulation 12 (2) above, except 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 established for reconstituted juice from the same fruit.

**‘Fruit Nectar’** means the unfermented but fermentable product obtained by adding water, with or without the addition of sugars, and/or honey to the products (fruit juice, fruit juice from concentrate, concentrated fruit juice, water extracted fruit juice, dehydrated/powerd fruit juice) to puree and/or to concentrated fruit puree and/or a mixture of those products.

**‘Fruit Puree’** means the fermentable but unfermented product obtained by any suitable physical process such as sieving, grinding, milling the edible part of whole or peeled fruit without removing the juice.

**“Package”** means any form of packaging material in which the fruit juices and nectars are packed for sale as a single item.

## 13. Repeal of Fruit Juice and Nectar Regulation 2005.

- (1) The Fruit Juice and Nectar Regulations 2005 is hereby repealed.
- (2) The repeal of these Regulations specified in Regulations 13 (1) of this Regulation shall not affect anything done or purported to be done under the repealed Regulations.

## 14. Citation

These Regulations may be cited as Fruit Juice and Nectar Regulations, 2019

**SCHEDULE “A”**  
**DEFINITIONS AND COMPOSITIONS OF FRUIT JUICES, NECTAR AND FRUIT  
PUREE**

Fruit juice may contain sugar, invert sugar or dextrose and any food additives, excluding non-nutritive sweetener approved by the Agency.

**1. Orange Juice (*Citrus sinensis*)**

- (1) Orange juice shall be the fruit juice obtained from the endocarp of sound, ripe oranges and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.
- (2) The soluble solid determined by the minimum Brix level for the single strength orange juice not from concentrate shall be 10 and the Brix level for reconstituted orange juice from concentrate shall be 11.2.
- (3) The essential oils content of an orange juice shall not exceed 0.4ml/kg.

**2. Pineapple Juice (*Ananas comosus*) (*Ananas sativus*)**

- (1) Pineapple juice shall be the fruit juice obtained from sound ripe pineapples and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.
- (2) The soluble solids determined by minimum Brix level shall be 11.2 for pineapple juice exclusive of added sugars and where the juice has been obtained using concentrated juice with the addition of potable water, the soluble solids determined by the minimum Brix level shall be 12.8 for pineapple juice exclusive of added sugars.
- (3) The total quantity of added sugars shall not exceed 25g/kg and the addition of sugars is not permitted when the juice has been acidified.
- (4) Ethanol content of the pineapple juice shall not exceed 3g/kg.

**3. Grape Juice (*Vitis vinifera* or hybrids thereof; *Vitis labrusca* or hybrids thereof)**

- (1) Grape juice shall be the fruit juice obtained from sound, ripe grapes and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of juice.
- (2) The soluble grape solids determined by the minimum Brix level shall be 13.5 for grape juice and where the juice has been obtained using concentrated juice with the addition of potable water, the soluble solids determined by the minimum Brix level shall be 15.9 for grape juice.
- (3) The ethanol content shall not exceed 5g/kg.
- (4) The volatile acids content of a Grape Juice shall not exceed 0.4g/kg, expressed as acetic acid.

**4. Lemon Juice (*Citrus lemon*)**

- (1) Lemon Juice shall be the fruit juice obtained from sound, ripe lemon and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.

- (2) The soluble lemon solids determined by the minimum Brix level for lemon juice shall be 7.0.
  - (3) The ethanol content of a lemon juice shall not exceed 3g/kg.
  - (4) The essential oils content of a lemon juice shall not exceed 0.5ml/kg.
5. **Grapefruits (*Citrus paradisi*)**
- (1) Grapefruit juice shall be the fruit juice obtained from sound, ripe grapefruits and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.
  - (2) The soluble solids determined by the minimum Brix level shall be 9.5 for grapefruit exclusive of added sugars and the total quantity of added sugars and the minimum Brix level for reconstituted grapefruit from concentrate shall be 10.0.
  - (3) The total quantity of added sugars shall not exceed 50g/kg.
  - (4) The ethanol content shall not exceed 3.0g/kg.
  - (5) The essential oils content shall not exceed 0.3ml/kg.
6. **Apple Juice (*Pyrus malus*)**
- (1) Apple juice shall be the fruit juice obtained from sound, ripe apples and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.
  - (2) The soluble solids determined by the minimum Brix level shall be 10.2 for apple juice and the minimum Brix level for reconstituted apple juice from concentrate shall be 11.2.
  - (3) The ethanol content shall not exceed 5g/kg.
  - (4) The volatile acids content of an apple juice shall not exceed 0.4g/kg expressed as acetic acid.
7. **Blackcurrant Juice (*Ribes nigrum* L)**
- (1) Blackcurrant juice shall be the fruit juice obtained from sound, ripe blackcurrants and the juice may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.
  - (2) The soluble solids determined by the minimum Brix level shall be 10.5 for blackcurrant juice and the minimum Brix level for reconstituted blackcurrant from concentrate shall be 11.0.
  - (3) The total quantity of added sugars calculated as dry matter shall not exceed 200g/kg of the final product.
  - (4) The ethanol content shall not exceed 3g/kg.
  - (5) The volatile acids content shall not exceed 1.2g/kg expressed as acetic acid.
8. **Other fruit juice(s)**
- (1) Other fruit juices shall be the fruit juices made from fruits of single species and the fruit juices may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining the essential composition and quality factors of the juice.
  - (2) The soluble solids determined by the minimum Brix level shall correspond to the soluble solids content of the named ripe fruit exclusive of added sugar as in Schedule 'A'.

- (3) The total quantity of added sugars shall not exceed 100g/kg, except for very acid fruits, where 200g/kg is permitted.
- (4) The addition of sugar is not permitted when the juice has been acidified.
- (5) The ethanol content shall not exceed 5g/kg.

#### 9. **Mixed Fruit juice**

- (1) Mixed fruit juice shall be the fruit juice obtained from two or more species of sound ripe fruits and the juices may have been concentrated and later reconstituted with potable water suitable for the purpose of maintaining their essential composition and quality factors.
- (2) The soluble solids determined by the minimum Brix level (exclusive of added sugars) shall be a value which corresponds to the soluble solids content of the ripe fruits exclusive of added sugars.
- (3) The quantity of sugars added, calculated as dry sugar shall not exceed 100g/kg.
- (4) The addition of sugars to mixed fruit juice is not permitted when the juice has been acidified.
- (5) The ethanol content of a mixed fruit juice shall not exceed 3g/kg.

#### 10. **Carbonated fruit juice**

Carbonated juice or sparkling juice shall be the named fruit juice impregnated with carbon dioxide, under pressure or where the fruit juice contains more than 2g/kg of carbon dioxide and the term “carbonated” shall appear in close proximity to the name of the product and carbon dioxide shall be declared in the list of ingredients.

#### 11. **Fruit Puree**

- (1) Fruit puree is the unfermented but fermentable product obtained by sieving the edible part of the whole or peeled fruit without removing the juice.
- (2) The fruit shall be sound, appropriately mature and fresh fruit or fruit preserved by physical means.
- (3) Concentrated fruit puree may be obtained by the physical removal of water from the fruit puree.
- (4) Fruit purée may have restored aromatic substances and volatile flavour components, all of which must be obtained by suitable physical means, and all of which must be recovered from the same kind of fruit. Pulp and cells obtained by suitable physical means from the same kind of fruit may be added.

#### 12. **Nectar**

- (1) Nectar is the unfermented but fermentable product obtained by adding potable water, sugars, or both, or other carbohydrate sweeteners as described in Schedule ‘D’ to fruit puree or concentrated fruit puree or to a mixture of those products.
- (2) The minimum juice and/or puree content shall be as in Schedule ‘C’.
- (3) Aromatic substances, volatile flavour components, pulp and cells all of which must be recovered from the same kind of fruit and be obtained by suitable physical means may be added. That product moreover must meet the requirements defined for fruit nectars in Schedule C.



**SCHEDULE 'B'**  
**COMPOSITION**  
**Basic ingredients**

1. Soluble Solids are as follows –
  - (1) for fruit juices not from concentrates offered for consumption as such, the soluble solids content of the single strength juice shall not be modified and shall be in accordance with the minimum Brix level established in the 1st table below;
  - (2) the preparation of fruit offered for direct consumption that requires reconstitution of condensed or concentrated juices shall be in accordance with the minimum Brix level indicated in the 1st table, exclusive of the solids of any added optional ingredients and additives and if there I no Brix level specified in the table, minimum Brix shall be calculated on the basis of the soluble solids content of the single strength, unconcentrated juice used to produce such concentrated juice;
  - (3) for reconstituted juice from concentrate, potable water used in reconstitution shall at a minimum meet Guidelines for Drinking Water Quality of the World Health Organization with Nitrate levels which shall not exceed 25 mg/l and Sodium levels shall not exceed 50 mg/l.
2. Minimum Brix level for reconstituted juice from concentrate and single strength juice not from concentrate are as follows –

Fruit's Common Name	Botanical Name	Minimum Brix Level for Reconstituted Fruit Juices and Reconstituted Puree	Minimum Juice and/or Puree Content (% v/v) for Fruit Nectars
Kiwi	<i>Actinidia deliciosa</i> ( <i>A. Chev.</i> ) <i>C. F. Liang &amp; A. R. Ferguson</i>	(*)	(*)
Cashewapple	<i>Anacardium occidentale L.</i>	11.5	25.0

Pineapple	<i>Ananas comosus</i> (L.) Merrill <i>Ananas sativis</i> L. Schult. f.	12.8 It is recognized that in different countries, 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 these countries 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 10oBrix for pineapple juice and apple juice.	40.0
Soursop	<i>Annona muricata</i> L.	14.5	25.0
Sugar Apple	<i>Annona squamosa</i> L.	14.5	25.0
Starfruit	<i>Averrhoa carambola</i> L.	7.5	25.0
Papaya	<i>Carica papaya</i> L.	(*)	25.0
Star Apple	<i>Chrysophyllum cainito</i>	(*)	(*)
Water Melon	<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai var. <i>Lanatus</i>	8.0	40.0
Lime	<i>Citrus aurantifolia</i> (Christm.) (swingle)	8.0	According to the legislation of the importing country
<b>Fruit's Common Name</b>	<b>Botanical Name</b>	<b>Minimum Brix Level for Reconstituted Fruit Juices and Reconstituted Puree</b>	<b>Minimum Juice and/or Puree Content (% v/v) for Fruit Nectars</b>
Sour Orange	<i>Citrus aurantium</i> L.	(*)	50.0
Lemon	<i>Citrus limon</i> (L.) Burm. f. <i>Citrus limonum</i> Rissa <i>Citrus</i>	8.0 <sup>14</sup>	According to the legislation of the importing country
Grapefruit	<i>Citrus paradisi</i> Macfad	10.0 <sup>14</sup>	50.0
Sweetie grapefruit	<i>Citrus paradisi</i> , <i>Citrus grandis</i>	10.0	50.0
Mandarine/ Tangerine	<i>Citrus reticulata</i> Blanca	11.8 <sup>14</sup>	50.0
Orange	<i>Citrus sinensis</i> (L.)	11.8 – 11.2 <sup>14</sup> and consistent with the application of national legislation of the importing	50.0

		country but not lower than 11.2. It is recognized that in different countries, 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 these countries 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.	
Coconut	<i>Cocos nucifera</i> L. <sup>15</sup>	5.0	25.0
Melon	<i>Cucumis melo</i> L.	8.0	35.0
Casaba Melon	<i>Cucumis melo</i> L. subsp. <i>melo</i> var. <i>inodorus</i> H. Jacq.	7.5	25.0
Honeydew Melon	<i>Cucumis melo</i> L. subsp. <i>melo</i> var. <i>inodorus</i> H. Jacq.	10.0	25.0
Quince	<i>Cydonia oblonga</i> Mill.	11.2	25.0
Persimmon	<i>Diospyros kbaki</i> Thunb.	(*)	40.0
Crowberry	<i>Empetrum nigrum</i> L.	6.0	25.0
Loquat	<i>Eriobotrya japonica</i>	(*)	(*)
<b>Fruit's Common Name</b>	<b>Botanical Name</b>	<b>Minimum Brix Level for Reconstituted Fruit Juices and Reconstituted Puree</b>	<b>Minimum Juice and/or Puree Content (% v/v) for Fruit Nectars</b>
Guavaberry Birchberry	<i>Eugenia syriaca</i>	(*)	(*)
Suriname Cherry	<i>Eugenia uniflora</i> Rich.	6.0	25.0
Fig	<i>Ficus carica</i> L.	18.0	25.0
Kumquat	<i>Fortunella Swingle</i> sp.	(*)	(*)
Strawberry	<i>Fragaria</i> × <i>ananassa Duchense</i> ( <i>Fragaria chiloensis</i> Duchesne × <i>Fragaria virginiana</i> Duchesne)	7.5	40.0
Genipap	<i>Genipa americana</i>	17.0	25.0
Sea Buckthorn	<i>Hippophae elaeagnaceae</i>	(*)	25.0
Buckthornberry = Sallow-thornberry	<i>Hippophae rhamnoides</i> L.	6.0	25.0

Litchi/Lychee	<i>Litchi chinensis</i> Sonn.	11.2	20.0
Tomato	<i>Lycopersicum esculentum</i> L.	5.0	50.0
Acerola (West Indian Cherry)	<i>Malpighia sp.</i> (Moc. & Sesse)	6.5	25.0
Apple	<i>Malus domestica</i> Borkh.	11.5 It is recognized that in different countries, 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 these countries 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.	50.0
Crab Apple	<i>Malus prunifolia</i> (Willd.) Borkh. <i>Malus sylvestris</i> Mill.	15.4	25.0
Mammee Apple	<i>Mammea americana</i>	(*)	(*)
Fruit's Common Name	Botanical Name	Minimum Brix Level for Reconstituted Fruit Juices and Reconstituted Puree	Minimum Juice and/or Puree Content (% v/v) for Fruit Nectars
Mango	<i>Mangifera indica</i> L.	13.5	25.0
Mulberry	<i>Morus sp.</i>	(*)	30.0
Banana	<i>Musa</i> species including <i>M. acuminata</i> and <i>M. paradisiaca</i> but excluding other plantains	(*)	25.0
Yellow Passion Fruit	<i>Passiflora edulis</i>	(*)	(*)
Passion Fruit	<i>Passiflora edulis</i> Sims. f. <i>edulis</i> <i>Passiflora edulis</i> Sims. f. <i>Flavicarpa</i> O. Def.	12	25.0
Passion Fruit	<i>Passiflora quadrangularis</i> .	(*)	(*)
Date	<i>Phoenix dactylifera</i> L.	18.5	25.0
Sapote	<i>Pouteria sapota</i>	(*)	(*)
Apricot	<i>Prunus armeniaca</i> L.	11.5	40.0
Sweet Cherry	<i>Prunus avium</i> L.	20.0	25.0
Sour Cherry	<i>Prunus cerasus</i> L.	14.0	25.0
Stonesbaer	<i>Prunus cerasus</i> L. cv <i>Stevnsbaer</i>	17.0	25.0

Plum	<i>Prunus domestica</i> L. subsp. <i>domestica</i>	12.0	50.0
Prune	<i>Prunus domestica</i> L. subsp. <i>domestica</i>	18.5	25.0
Quetsche	<i>Prunus domestica</i> L. subsp. <i>domestica</i>	12.0	25.0
Nectarine	<i>Prunus persica</i> (L.) Batsch var. <i>nucipersica</i> (Suckow) c. K. Schneid.	10.5	40.0
Peach	<i>Prunus persica</i> (L.) Batsch var. <i>persica</i>	10.5	40.0
Sloe	<i>Prunus spinosa</i> L.	6.0	25.0
Guava	<i>Psidium guajava</i> L.	8.5	25.0
Pomegranate	<i>Punica granatum</i> L.	12.0	25.0
Fruit's Common Name	Botanical Name	Minimum Brix Level for Reconstituted Fruit Juices and Reconstituted Puree	Minimum Juice and/or Puree Content (% v/v) for Fruit Nectars
Aronia/ Chokeberry	<i>Pyrus arbustifolia</i> (L.) Pers.	(*)	(*)
Pear	<i>Pyrus communis</i> L.	12.0	40.0
Black Currant	<i>Ribes nigrum</i> L.	11.0	30.0
Red Currant	<i>Ribes rubrum</i> L.	10.0	30.0
White Currant	<i>Ribes rubrum</i> L.	10.0	30.0
Red Gooseberry	<i>Ribes uva-crispa</i>	(*)	30.0
Goosberry	<i>Ribes uva-crispa</i> L.	7.5	30.0
White Goosberry	<i>Ribes uva-crispa</i> L.	(*)	30.0
Cynorrhodon	<i>Rosa canina</i> L.	(*)	40.0
Rosehip	<i>Rosa sp.</i> L.	9.0	40.0
Cloudberry	<i>Rubus chamaemorus</i> L.	9.0	30.0
Mulberry	<i>Rubus chamaemorus</i> L. <i>Morus hybrid</i>	(*)	40.0
Blackberry	<i>Rubus fruticosus</i> L.	9.0	30.0
Dewberry	<i>Rubus hispidus</i> (of North America) <i>R. caesius</i> (of Europe)	10.0	25.0
Red Raspberry	<i>Rubus idaeus</i> L. <i>Rubus strigosus</i> Michx.	8.0	40.0
Loganberry	<i>Rubus loganobaccus</i> L. H. Bailey	10.5	25.0
Black Raspberry	<i>Rubus occidentalis</i> L.	11.1	25.0
Boysenberry	<i>Rubus ursinus</i> Cham. & Schlttl.	10.0	25.0
Youngberry	<i>Rubus vitifolius</i> × <i>Rubus idaeus</i> <i>Rubus baileyanus</i>	10.0	25.0
Elderberry	<i>Sambucus nigra</i> L. <i>Sambucus canadensis</i> .	10.5	50.0

Fruit's Common Name	Botanical Name	Minimum Brix Level for Reconstituted Fruit Juices and Reconstituted Puree	Minimum Juice and/or Puree Content (% v/v) for Fruit Nectars
Lulo	<i>Solanum quitoense</i> Lam.	(*)	(*)
Rowanberry	<i>Sorbus aucuparia</i> L.	11.0	30.0
Sorb	<i>Sorbus domestica</i>	(*)	30.0
Caja	<i>Spondia lutea</i> L.	10.0	25.0
Umbu	<i>Spondias tuberosa</i> Arruda ex Kost.	9.0	25.0
Pome Apple	<i>Syzygium jambosa</i> Tamarindus indica	(*)	(*)
Tamarind (Indian date)	<i>Theobroma cacao</i> L. <i>Theobroma grandiflorum</i>	13.0	Adequate content to reach a minimum acidity of 0.5
Cocoa pulp	<i>Theobroma cacao</i> L.	14.0	50.0
Cupuacu	<i>Theobroma grandiflorum</i> L.	9.0	35.0
Cranberry	<i>Vaccinium macrocarpon</i> Aiton <i>Vaccinium oxycoccos</i> L.	7.5	30.0
Bilberry/ Blueberry	<i>Vaccinium myrtillus</i> L. <i>Vaccinium corymbosum</i> L. <i>Vaccinium angustifolium</i>	10.0	40.0
Lingonberry	<i>Vaccinium vitis-idaea</i> L.	10.0	25.0
Grape	<i>Vitis Vinifera</i> L. or hybrids thereof <i>Vitis Labrusca</i> or hybrids thereof	16.0	50.0
Other: High acidity			Adequate content to reach a minimum acidity of 0.5
Other: High pulp content, or Strong flavour			25.0
Other: Low acidity, Low pulp content, or Low/medium flavour			50.0

\*\*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. 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.

## SCHEDULE 'C'

### MINIMUM JUICE AND/OR PUREE IN FRUIT NECTARS

Fruit Nectars Made From	Minimum Juice and/or Puree Content (% m/m)
Apricot	35
Bilberry	40
Blackberry	30
Blackcurrant	30
Blackcurrant (non pulpy)	30
Cloudberry	30
Cranberry	30
Elderberry	50
Goosberry	30
Grapefruit	50
Guava	25
Mandarine	50
Mango (pulpy)	30
Orange	50
Peach	40
Peer	40
Raspberry	40
Redcurrant	30
Rose hip	40
Rowanberry	30
Sea Buckthorn	25
Strawberry	40
Tangerine	50
Whitecurrant	30
Whortleberry Other: High Acidic	30
Apple	50
Banana	25
Other: High Acidity, High pulp Content, or Strong Flavour	25
Other: Low Acidity, Low pulp Content, or Low/Medium Flavour	50

## SCHEDULE 'D'

### USE AND LIMITS OF FOOD ADDITIVES

FUNCTION		MAXIMUM LEVEL
<b>4.1</b>	<b>ANTIOXIDANTS</b>	
300	Ascorbic acid	Limited by GMP
220	Sulphur dioxide (lemon, lime and grape must only)	350mg/l
<b>4.2</b>	<b>ACIDITY REGULATORS</b>	
300	Citric acid	2g/l
330	Citric acid for (nectars)	5g/l
296	Malic acid (or nectars)	Limited by GMP
336	Tartaric acid (for nectars)	Limited by GMP
<b>4.3</b>	<b>CARBONATING AGENTS</b>	
290	Carbon dioxide	Limited by GMP
<b>4.4</b>	<b>STABILIZERS</b>	
440	Pectins	<3g/l
<b>4.5</b>	<b>SWEETENERS (OR NECTARS)</b>	
950	Acesulfame K	<350mg
951	Aspartame	<600mg
952	Cyclamic Acid and Salts	<400mg/l
954	Saccharine and Salts	<80mg/l
955	Sucralose	<250mg/l
954	Neohesperidine	30mg/l
4.7	Preservatives can be added as determined by the Agency	

#### 4.6. Carbohydrate sweeteners

Update this schedule

Dextrose, sorbitol, honey



**PROCESSING AIDS – MAXIMUM LEVEL OF USE IN LINE WITH GOOD  
MANUFACTURING PRACTICES (GMP)**

<b>FUNCTION</b>	<b>SUBSTANCE</b>
Antifoaming Agents	Polymethylsiloxane <sup>5</sup>
Clarifying Agents Filtration Aids Flocculating Agents	Adsorbent clays (bleaching, natural or activated earths)
	Adsorbent resins
	Activated carbon (only from plants)
	Bentonite
	Calcium hydroxide
	Cellulose
	Chitosan
	Colloidal silica
	Diatomaceous earth
	Gelatin (from skin collagen)
	Ion exchange resins (Cation and Anion)
	Kaolin
	Perlite
	Polyvinylpyrrolidone
	Potassium tartrate
	Precipitated calcium carbonate
	Rice hulls
	Silica sol
	Sulphur dioxide
	Tannin

## SCHEDULE 'E'

### \*Maximum Limits of Contaminants in Fruit Juice and Nectars

Contaminant in Fruit Juice/Nectars	Maximum Limits (mg/kg)
Arsenic (As)	0.2 mg/kg
Lead (Pb)	0.1 mg/kg
Tin (Sn)	200 mg/kg
Copper (Cu)	5 mg/kg
Zinc (zn)	5 mg/kg
Iron (Fe)	15 mg/kg
Sum of Copper, Zinc and Iron	20 mg/kg
Mineral impurities insoluble in 10% of hydrochloric acid shall not exceed 25mg/kg (only for clarified juices)	
Toxins	
Mycotoxins	
Patulin (in apple juice and apple juice ingredients)	50 µg/kg

**MADE** at Abuja this.....day of .....2019

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**Inuwa Abdulkadir Esq**  
**Chairman Governing Council**

**National Agency for Food and Drug Administration and Control (NAFDAC)**