

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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CX 5/10.2

CL 2013/9-CS

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TO: Codex Contact Points
Interested International Organizations

FROM: Secretariat of the Codex Alimentarius Commission
Joint FAO/WHO Food Standards Programme
00153 Rome, Italy

SUBJECT: **Request for Comments on the Proposed Draft Standard for Non-Centrifugated Dehydrated Sugar Cane Juice**

DEADLINE: **15 June 2013**

COMMENTS: **to:**
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(preferred)

BACKGROUND

1. As host country of the Committee on Sugars, Colombia is pleased to present a revised version of the proposed draft standard for "Non-Centrifugated Dehydrated Sugar Cane Juice" (see Annex), following consideration of the comments submitted by Codex members. The revised version is submitted to the 36th Session of the Codex Alimentarius Commission for adoption at Step 5/8, since the timeframe for finalization of the work relating to the draft document presented by Colombia is the 36th Session of the Commission.

GUIDELINES AND EXPLANATORY NOTES ON THE PROPOSED DRAFT STANDARD FOR NON-CENTRIFUGATED DEHYDRATED SUGAR CANE JUICE

2. The draft was circulated to Codex members and observers through CL 2012/35-CS, and comments were received from several countries and international organizations, as listed in Annex II of this document. These made valuable contributions on the various issues raised in the draft, for which the Commission is grateful.

Name of the Product

3. With regard to the name of the product, it is considered appropriate to maintain the term "non-centrifugated dehydrated sugar cane juice". The term "centrifuge" should be specified in the English-language version.

4. The list of common names shown in footnote 1 of this document has been extended as follows:

Chancaca (Chile, Ecuador and Peru); Gur or Jaggery (India); Jaggery and Khandsari (South Asia); Kokutou and Kurozatou (Japan); Mascabado (Philippines); Panela (Colombia, Honduras, Nicaragua, Panama, Plurinational State of Bolivia and others); Papelón (Bolivarian Republic of Venezuela and certain Central American countries); Piloncillo (Mexico); Rapadura (Brazil and Cuba); Tapa de Dulce, Dulce Granulado (Costa Rica).

This list is not exhaustive, but merely indicative of how the products might be referred to in different countries and regions.

Section 1 - Scope

5. The scope is consistent with the format for Codex standards. Moreover, given that the product in question, "non-centrifugated dehydrated sugar cane juice", must have a maximum total sugar (saccharose) content of 83%, the weighted value obtained from field studies and comments made by member countries, we decided not to include other products that have a saccharose content of roughly 99%, nor others that are obtained from a sugar melting process.

Section 3.2.1 - Colour

6. "Non-centrifugated dehydrated sugar cane juice" can exist in a wide variety of colours, depending on a variety of factors. Consequently, no specific colour range could be defined nor a colour sorting table — the latter to ensure that the document is as inclusive as possible with the range of colours displayed by the product in different latitudes.

Section 3.2.2 - Flavour and Aroma

7. The comment on maintaining the “flavoured and aromatized” presentations was not accepted, because the draft aims to include a product in the most natural form possible

Section 3.2.4 - Physical and Chemical Characteristics

8. With regard to the physical-chemical requirements of “non-centrifugated dehydrated sugar cane juice” in solid or block form, in accordance with the comments submitted and a review of the studies undertaken, a minimum level of 75.0 was included % for total sugars (expressed as saccharose), and a maximum of 10.0% for reducing sugars, since an upper limit for reducing sugars (formed by saccharose inversion) is required to facilitate the granulometry and reduce rheological changes.

9. With regard to the physical-chemical requirements for “non-centrifugated dehydrated sugar cane juice” in granulated form, in accordance with the comments submitted and a review of the studies undertaken, a minimum level of 84.0% was included for total sugars (expressed as saccharose); and a minimum of 4.5% and a maximum of 7.0% were added for reducing sugars.

Maximum limits of ash and minerals

10. The ash content refers to the inorganic elements that could remain after full oxidation of a product’s organic material. In this regard, the ash content of “non-centrifugated dehydrated sugar cane juice” stems specifically from the characteristics of the soils in which the sugar cane is grown. In several countries or regions, cultivation takes place on soils of volcanic origin and inter-Andean valleys that are prone to flooding, for which reason the soils contain minerals that could be absorbed by the plants and become dissolved in the sugarcane juice; and when this is processed to obtain the product the minerals are manifested as ash content.

11. As the minerals also add value to the product, their maximum levels do not characterize panela to the extent that sugar types do.

12. In keeping with the above, and given the various pedological and edaphological properties of the soils on which the sugar cane is grown, as noted above, and for the purpose of harmonizing the document, it is deemed preferable not to include a maximum level for minerals and ash.

Section 4 - Food additives

13. In view of the comments received, the product preparation process was reviewed once more, and it was found that no additives are required, apart from calcium hydroxide used as a processing aid.

14. At its 45th meeting (March 2013), the Food Additives Committee ratified the use of calcium hydroxide as a processing aid, in accordance with good manufacturing practices, and asked the CCCS to also include a reference to the *Guidelines on Substances Used as Processing Aids* (CAC/GL 75-2010).

15. The CCFA also asked the CCCS to indicate whether any food additive was needed in the preparation of non-centrifugated dehydrated sugar cane juice. Consequently, a section on additives was included specifying that the use of additives is not permitted in the products covered by the scope of this standard.¹

Section 7 - Labelling

16. This section is unchanged, because the labelling provisions are in line with the Codex Alimentarius product standards format and are additional to the general provisions contained in the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985).

Section 8 - Analysis and sampling methods

17. The analysis methods presented have been revised in line with the comments and internationally recommended practices. In this regard, we consider that the methods proposed by ICUMSA are not the most appropriate for analyses of non-centrifugated dehydrated sugar cane juice; the best approach is to use the AOAC methods for the iron, sulphite and ash tests.

18. The table shows the ICUMSA methods and the recommended AOAC methods for the determination of iron, sulphites and ash.

19. As noted by ICUMSA in relation to the principle of the method, ICUMSA methods are applicable to raw or refined sugars or sugar solutions, but not to processed products such as panela. We believe the figures obtained by the two methods, ICUMSA and AOAC, are not replicable.

¹ REP13/FA, paras. 39-40 and Appendix III.

| ASSAY | ICUMSA METHOD | AOAC METHOD |
|------------------|---|---|
| IRON | <p>ICUMSA-GS2/3/7/8-31</p> <p>In refined sugar products and sugar solutions Colorimetric method, with a 1.10-Phenantroline reading at 490nm Sensitivity 0.189 (experimental)</p> | <p>AOAC 985.35</p> <p>Iron in food products. Atomic absorption Microwave digestion Sensitivity 0.105 (experimental)</p> |
| SULPHITES | <p>ICUMSA-GS 2/3/7/8-31</p> <p>In white sugar, VHP raw sugar, juices and syrups Colorimetric method with a Rosaniline reading at 560 nm. Sensitivity 0.023 (experimental)</p> | <p>Method based on AOAC - 990.28</p> <p>In food products. Acid digestion titration method and distillation and titration with NaOH</p> |
| ASH | <p>ICUMSA-GS 1/3/4/7/8-13</p> <p>Raw sugar, brown sugar, juice, syrup and molasses. Conductometric method</p> | <p>Method based on AOAC - 900.02 Ed. 18 2005, 2nd revision 2007</p> <p>Gravimetric method Calcination at 550°C</p> |

ANNEX I
DRAFT CODEX STANDARD FOR
NON-CENTRIFUGATED DEHYDRATED SUGAR CANE JUICE²
(Step 5/8)

1. SCOPE

This standard applies to non-centrifugated dehydrated sugar cane juice, as defined in section 2, intended for human consumption, including for catering purposes or pre-packaging as appropriate, as well as to the product intended for subsequent processing, where indicated.

2. PRODUCT DEFINITION

“Non-centrifugated dehydrated sugar cane juice” is defined as the product, in any form or presentation, obtained from the evaporation of sugar cane juice *Saccharum officinarum L.*, which contains amorphous subhedral or anhedral microcrystals, invisible to the naked eye, which maintains its constituent elements, such as saccharose, glucose, fructose and minerals, and which is not obtained from the reconstitution of its elements (sugars).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 ESSENTIAL COMPOSITION

3.1.1 Basic ingredients

Sugar cane juice *Saccharum Officinarum L.*

3.2 QUALITY FACTORS

3.2.1 Colour

“Non-centrifugated dehydrated sugar cane juice” may exist in various colours characteristic of the product, depending, among other aspects, on the sugar cane variety, the agro-ecological conditions of cultivation and the technologies of the manufacturing process.

3.2.2 Flavour and aroma

The flavour and aroma shall be characteristic of the product.

3.2.3 Defects

The product will be free from defects such as foreign materials or softening. It may not be fermented or show signs of attacks by fungi and pests.

3.2.4 Physical and chemical characteristics

“Non-centrifugated dehydrated sugar cane juice” shall fulfil the conditions shown in tables 1 and 2, as appropriate.

Table 1. Physical-chemical requirements for solid non-centrifugated dehydrated sugar cane juice

| Requirement | Value | |
|--|-------|------|
| | Min. | Max. |
| Moisture, mass fraction % | -- | 9.0 |
| Ashes, mass fraction % | 0.8 | -- |
| Total sugars (saccharose), mass fraction % | 75.0 | 83.0 |
| Reducing sugars (glucose), mass fraction % | 5.5 | 10.0 |
| Proteins % (N ×6.25) | 0.2 | -- |
| Potassium mg/100 g | 100.0 | -- |
| Calcium mg/100 g | 10.0 | -- |
| Phosphorous mg/100 g | 5.0 | -- |
| Iron mg/100 g | 1.5 | -- |

² In certain regions, non-centrifugated dehydrated sugar cane juice is known by the following names: Chancaca (Chile, Ecuador and Peru); Gur or Jaggery (India); Jaggery and Khandsari (South Asia); Kokuto (Japan); Mascabado (Philippines); Panela (Colombia, Honduras, Nicaragua, Panama, Plurinational State of Bolivia and others); Papelón (Bolivarian Republic of Venezuela and some Central American countries); Piloncillo (Mexico); Rapadura (Brazil and Cuba); Tapa de dulce, Dulce granulado (Costa Rica).

Table 2. Physical-chemical requirements for granulated non-centrifugated dehydrated sugar cane juice

| Requirement | Value | |
|--|-------|------|
| | Min. | Max. |
| Moisture, mass fraction % | -- | 5.0 |
| Ashes, mass fraction % | 1.0 | -- |
| Total sugars (saccharose), mass fraction % | 84.0 | 93.0 |
| Reducing sugars (glucose), mass fraction % | 4.5 | 7.0 |
| Proteins % (N ×6.25) | 0.2 | -- |
| Potassium mg/100 g | 100.0 | -- |
| Calcium mg/100 g | 10.0 | -- |
| Phosphorous mg/100 g | 5.0 | -- |
| Moisture, mass fraction % | 1.5 | -- |

4. **FOOD ADDITIVES**

No additives are permitted in the products covered by this standard.

5. **PROCESSING AIDS**

Only calcium hydroxide is permitted as a processing aid, according to good manufacturing practices (GMP) and the *Guidelines on Substances Used as Processing Aids* (CAC/GL 75-2010).

6 **CONTAMINANTS**

6.1 The products covered by this standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Foods and Feeds (CODEX STAN 193-1995).

6.2 The products covered by this standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

7. **HYGIENE**

7.1 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 General Principles of Food Hygiene (CAC/RCP 1-1969) and other relevant Codex texts such as codes of hygienic practice and codes of practice.

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

8. **LABELLING**

The product regulated by the provisions of this standard shall be labelled in accordance with the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985). The following specific provisions also apply:

7.1 **NAME OF THE PRODUCT**

7.1.1 The product name "non-centrifugated dehydrated sugar cane juice" may be followed by the ordinary name currently accepted in the country of origin or retail sale.

7.1.2 The form of presentation shall be included as part of the name, as follows:

(a) Non-centrifugated dehydrated sugar cane juice (common name of the product, e.g."Solid Panela").

(b) Non-centrifugated dehydrated sugar cane juice (common name of the product, e.g."Granulated Panela").

8. ANALYSIS AND SAMPLING METHODS

| Provision | Method | Principle | Type |
|---|-----------------------------|--|------|
| Moisture | AOAC 925.45 | Loss on drying | |
| Ash | AOAC 900.02 | Incineration | |
| Total sugars (saccharose) and reducing sugars (glucose) | AOAC 923.09 | Volumetry | |
| Calcium, iron and potassium | AOAC 985.35 | Spectrophotometry by flame atomic absorption | |
| Phosphorous | AOAC 995.11 | Colorimetric method | |
| Sulphurated compounds | AOAC 975.32 and AOAC 990.28 | Monier Williams | |

ANNEX II**AVAILABLE ONLY IN ORIGINAL LANGUAGE****Comments on
DRAFT CODEX STANDARD FOR NON-CENTRIFUGATED DEHYDRATED SUGAR CANE JUICE****Received in reply to CL 2012/35-CS****(Step 5/8)****Comments submitted by:****Australia, Brasil, Chile, Costa Rica, European Union, India, Japan, Mexico, Philippines, United States of América
and European Association of Sugar Producers.****AUSTRALIA / AUSTRALIE**General Comments

Australia is not a significant producer of Non-centrifuged dehydrated sugar cane juice; however, we note that, it appears that many specifications which were in an earlier draft of the proposed standard have been taken out due to country comments. This has left a very brief proposed draft standard.

Regarding section 4 Additives, we note that in previous drafts many more additives were proposed for this product (previously called panela) including colours and phosphoric acid and flavourings. The current proposed draft suggestion of calcium hydroxide as the only additive (Option 1) or sulphites (as sulphur dioxide) as the only additives (Option 2) makes it unclear what additives are really needed for the product – and the fact that calcium hydroxide and sulphites are used for different purposes makes choosing between these options quite difficult.

The discussion on whether CCFA should amend or add a category to the GSFA to accommodate this product is largely dependent on what additives are agreed as being permitted. This discussion should take place in the Codex Committee on Food Additives.

Types of Methods of Analysis

In accordance with the procedural manual, 'the primary responsibility for supplying information about the specified Codex level(s), methods of analysis and criteria resides with the referring Committee', therefore it is not critical that CCFA 'types' the method, but it is critical that they develop and provide specific method performance criteria (Applicability, Applicable range, Limit of detection, Limit of quantitation, Precision, Recovery, Trueness, as per procedural manual Table 1 p66) required of the method to support the objectives of the standard. Alternatively by providing a method which CCMAS can endorse, they are in effect recommending/specifying by default the 'proposed' methods' performance characteristics as the 'criteria'. Once provided, either the method can be considered for endorsement and 'typed' by CCMAS; or if only method performance criteria is provided, CCMAS may seek appropriate methods with validation data meeting their criteria.

CL2012/35-CS Annex Table 1 and Table 2: As many comments have already suggested, the information in these tables has some issues such as:

- the "Min." and "Max." values has been interchanged, as we would expect that maximum values are required for 'Ash', 'Reducing sugars', 'Protein', 'Potassium', 'Calcium', 'Phosphorus', 'Iron' (and potentially 'Sulphites'), not minimum values. Also a minimum value for 'Total Sugars' is expected, not a maximum.
- a method of analysis for Sulphites has been provided with no corresponding 'Requirement - value' in Table 1 & 2. What would be a suitable maximum limit for sulphite? As a 'maximum or minimum limit' is a major contributor to defining the suitability of the analytical method.
- a "Method of Analysis and Sampling" for the Protein has not been provided. However assuming the maximum or minimum value can be clarified, in addition to other method performance criteria mentioned above, a method could be identified.
- CCMAS may also require clarification in the standard that these requirements (specifications), except 'moisture', are on an 'as received basis' or moisture corrected 'dry weight basis'.
- other parameters such as pH (as acidity regulation is mentioned), Polarization, and Heavy metals may also be considered for inclusion.
- The usual chemical term used is 'Sucrose', in replacement of 'Saccharose' which appears in various places throughout the document.

Section 8: The methods supplied are predominantly AOAC and many comments (Mexico, Philippines, United States) have suggested the use of ICUMSA (International Commission for Uniform Methods of Sugar Analysis) methods where their "raw sugar" methods, are more likely to be accepted by CCMAS as applicable for this type of product. Note, under CODEX STAN 234-1999 - Sugars and Honey, a majority of the same parameters, for similar commodities, have ICUMSA methods already endorsed and typed.

Overall, while a 'type' of analysis can be determined by CCMAS, Australia suggests that there needs to be additional clarification and consensus as to the actual 'Physical-chemical requirement' specifications and sufficient method performance 'criteria' information provided to ensure CCMAS can complete this task and endorse the proposed methods.

BRAZIL / BRÉSIL / BRASIL

General comments:

We noted the effort made to bring flexibility to the Standard by amending the title of the proposed Draft from "Codex Standard for Panela" to "Codex Standard for Non-Centrifugal Sugars".

As first mentioned in our response to CL 2011-25 this change allows the development of a standard for "Panela" and future inclusion of other products that may be closely related with "Panela", but are not in conditions to be listed in the proposed Draft.

This is in line with other comments that mentioned the specificities as well as complexity of standardizing artisanal products.

Making a parallel with the Codex Standard for Cassava Flour (CODEX STAN 176-1989), another product that may be also relied as artisanal but with crescent industrial improvements, our last attempt to incorporate Codex provisions in the Brazilian national regulation (2012) had faced some constrains for two out of our most industrialized Cassava Flours due to changes in their processes - from artisanal to industrial.

In that sense we would like to reassess the particularities of sugar process, and highlight that at this time Non-Centrifugal Sugars provisions should be restricted for those products that are evaporated without crystallization and sold only in solid form such as solid rectangular cakes or chunks (i.e., not for the ground product).

With this approach Brazil considers that Codex will continue to achieve an important step for the internationalization of "Panela", "Rapadura" and similar products worldwide, bringing attention as well as differentiating them from white and brown sugars that are crystallized and subjected to further processes.

Specific Comments:

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|---|
| Current provision at the Proposed Draft Standard |
| Title PROPOSED DRAFT CODEX STANDARD FOR NON-CENTRIFUGATED DEHYDRATED SUGAR CANE JUICE3 |
| Proposal PROPOSED DRAFT CODEX STANDARD FOR <u>SOLID</u> NON-CENTRIFUGATED DEHYDRATED SUGAR CANE JUICE3 |
| Rationale Proposed change is needed due to our general and specific comments as presented at this stage of the discussion and countries concerns at CL 2012/35-CS. It is recommended that this Standard do not encompass other forms of presentation than solid Panela/Rapadura as such incorporation will lead to further discussion, need to assess new data and/or research. We also would like to highlight that a Codex Standard for ground/granulated Centrifugated Sugars may affect negatively the trade of such product (e.g., açúcar mascavo) in Brazil and therefore may need to be deeply discussed previously to any advancement of the work. |

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| Current provision at the Proposed Draft Standard |
| 1. SCOPE This standard applies to non-centrifugated dehydrated sugar cane juice, as defined in section 2, intended for human consumption, including for catering purposes or re-packaging if required, as well as to the product intended for further processing, where indicated. |
| Proposal 1. SCOPE This standard applies to non-centrifugated dehydrated sugar cane juice, as defined in section 2, intended for human consumption, including for catering purposes or re-packaging if required, as well as to the product intended for further processing, where indicated. <u>This Standard does not cover products obtained from the reconstitution of sugars.</u> |

Rationale

Proposed changes are editorial but aligned with recent standards approved by other Codex Commodity Committees to keep text simple. Coverage and exempts of the Standard need to be listed at the Scope.

Current provision at the Proposed Draft Standard

2. PRODUCT DEFINITION

“Non-centrifugated dehydrated sugar cane juice” is defined as the product, in any form or presentation, obtained from the evaporation of sugar cane juice *Saccharum officinarum* L., which contains amorphous subhedral or anhedral microcrystals, invisible to the naked eye, which maintains its constituent elements, such as saccharose, glucose, fructose and minerals, and which is not obtained from the reconstitution of its elements (sugars).

Proposal

This Standard applies to “Non-centrifugated dehydrated sugar cane juice” ~~is defined as the product in any form or presentation,~~ **presented in solid form such as solid and/or compact rectangular cakes or chunks of variable sizes,** obtained from the evaporation of sugar cane juice *Saccharum officinarum* L., **without centrifugation and non sulphited,** which contains ~~amorphous subhedral or anhedral~~ microcrystals, invisible to the naked eye, ~~which and~~ maintains its constituent elements, such as saccharose, glucose, fructose and minerals, ~~and which is not obtained from the reconstitution of its elements (sugars).~~

Rationale

Editorial:

insertion of “This Standard applies to” – to allow further amendment to other forms of presentation and/or inclusion of other sugars (in line with text of Codex Stan 212-1999).

removal of “is defined as” – as not a Codex language and already covered by the title of section 2 - Product definition.

Technical - Suggestion to Remove a provision

removal of “in any form of presentation” – as other forms of presentation than solid should not be allowed at this stage of discussion. We agree that there are constrains associated with the standardization of artisanal products and that the complexity of a standard for ground non-centrifugated dehydrated sugars may impose a further round of discussion or a physical Working Group. These sugars, when ground (i.e., açúcar mascavo), have a relevant trade in Brazil, needs a sort of additives and are subject to further technological steps. We highlight that such rationale may be considered as ground product might lead to different composition/provisions for the standard than those presented and take extra time for completion of the work.

Technical - Suggestion to Insert a provision

Insert “**presented in solid form such as solid and/or compact rectangular cakes or chunks of variable sizes,**” to limit the Standard only to such forms of presentation as previously stated.

Editorial – remove italics of “L.”

Technical - Suggestion to Insert a provision

Insert “**without centrifugation and non sulphited,**” to explicitly specify that non-centrifugal sugars do not undergo centrifugation and are not sulphated during process. Sulphite addition is not a processing step of non-centrifugal sugars and this should be highlighted on the proposed standard.

Technical - Suggestion to Remove a provision

removal of “~~amorphous subhedral or anhedral~~” to keep the standard simple, to reinforce the final statement of the Scope (as suggested bellow) not to allow reconstitution of the product from sugars and not to make any confusion with CODEX STAN 212-1999, more related with the crystallized forms of Sugars.

reallocation of “and is not obtained from the reconstitution of its elements (sugars)” to the Scope as this is more related to the limits of the Standard.

Current provision at the Proposed Draft Standard

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| 3.2.1 Colour |
| “Non-centrifugated dehydrated sugar cane juice” may exist in various colours characteristic of the product, depending, among other aspects, on the sugar cane variety, the agro-ecological conditions of cultivation and the technologies of the manufacturing process. |
| Proposal |
| 3.2.1 Colour |
| “Non-centrifugated dehydrated sugar cane juice” may be light or dark brown to golden yellow in colour exist in various colours characteristic of the product, depending, among other aspects, on the sugar cane variety, the agro-ecological conditions of cultivation and the technologies of the manufacturing process. |
| Rationale |
| To be more specific. |

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| Current provision at the Proposed Draft Standard |
| 3.2.4 Physical and chemical characteristics |
| “Non-centrifugated dehydrated sugar cane juice” shall fulfil the conditions shown in tables 1 and 2, as appropriate. |
| Proposal |
| 3.2.4 Physical and chemical characteristics |
| “Non-centrifugated dehydrated sugar cane juice” shall fulfill the conditions shown in tables 1 and 2 the table below , as appropriate. |
| Rationale |
| For consistency with our previous comments not to include granulated/ground forms to the Standard. |

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| Current provision at the Proposed Draft Standard |
| Table1. Physical-chemical requirements for solid “non-centrifugated dehydrated sugar cane juice” |
| Proposal |
| Table1. Table4. Physical-chemical requirements for solid “non-centrifugated dehydrated sugar cane juice” |
| Rationale |
| Removal of “ Table 1 ” as Numbering is not needed if only one table is to be considered |

Brazil would like to

| | Current provision as Presented | Proposal |
|-------------------------------------|---|----------------------------|
| Ashes, mass fraction% | 0.8 (mín) | 0.7 (mín) |
| Non-reducing sugars, mass fraction% | 83.0 (máx) | 81.0 (mín) |
| Potassium mg/100 g | 100.0 (mín) | 60.0 (mín) |
| Rationale | Proposed values are needed to encompass Brazilian Rapadura. | |

Besides that, we would like to propose that the units for Polarization should be expressed in °Z
 Total Sugars, Reducing sugars (glucose) and Ashes in %m/m
 Colour ICUMSA in UI

Current provision at the Proposed Draft Standard

4. FOOD ADDITIVES

Comments and Rationale

It would be appropriate to make reference to the GSFA in this section of this standard (Option 2), since the GSFA is to become the single Codex reference regarding food additives. However, Brazil would like to present some considerations regarding **Option 2**:

Acidity regulators used in accordance with Tables 1 and 2 of the General Standard for Food Additives in food category 11.1.3 soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw sugar cane and non-centrifugated dehydrated sugar cane juice or listed in Table 3 of the General Standard for Food Additives are acceptable for use in foods conforming to this standard.

1. There are no adopted provisions or proposals in step procedures for acidity regulators under food category 11.1.3 in tables 1 and 2 of the GSFA.

2. The only provision under food category 11.1.3 is for sulfites (adopted in 2005), which are not acidity regulators, neither technologically justified for panela/rapadura. Therefore CCS could recommend CCFA to include a note on this provision (*Note "x" Excluding Solid Non-Centrifugated Dehydrated Sugar Cane Juice*).

3. It is not clear whether table 3 of the GSFA is generally accepted for food category 11.1.3, since it is a subcategory of 11.1, which is listed on the annex to table 3 – *Food Categories or Individual Food Items Excluded from the General Conditions of Table Three. The use of additives listed in Table Three in the following foods is governed by the provisions in Tables One and Two*. If the general conditions of table 3 do not apply to subcategory 11.1.3, then reference to table 3 in section 4 of this standard is inappropriate.

Brazil suggests that the CCS clarifies these points before deciding on the text for section 4.

Nonetheless in case our preference for option 2 be not accepted, Brazil would like to present for inclusion (i.e., list of Option 1) a suggestion for acidity regulators which are needed and currently used for both rapadura and açúcar mascavo:

| 4.1 ACIDITY REGULATORS INS No. | Name of food additive | Maximum level |
|--------------------------------|-----------------------|---------------|
| INS 170(i) | Calcium carbonate | GMP |
| INS 529 | Calcium oxide | GMP |

CHILE / CHILI

Comité Nacional del Codex Alimentarius de Chile

Subcomité del CCFA

En el título, definición y en todos aquellos puntos donde se menciona sólo la caña de azúcar también incluir la remolacha, ya que en Chile el Reglamento Sanitario de los Alimentos D.S. 977/96 (Art. 382 chancaca) menciona ambos orígenes.

En el punto 4 Aditivos alimentarios estamos de acuerdo con la opción 2

En el punto 5 contaminantes de acuerdo con 5.1 y no nos pronunciamos sobre 5.2

Comité Nacional del Codex Alimentarius de Chile

Subcomité del CCMAS

| | |
|---|--|
| 1. Objetivo y ámbito de aplicación | Se considera relevante apoyar el anteproyecto para Jugo de Caña de Azúcar deshidratado No centrifugado, se solicita ampliar el título a la Remolacha azucarera (<i>Beta vulgaris</i> variedad <i>saccharina</i> o <i>sacharifera</i>). En este contexto el término de azúcar cruda es más amplio por lo cual se sugiere utilizar dicho nombre. |
|---|--|

| | |
|--|---|
| <p>2. Pertinencia y actualidad. Evaluar si el texto propuesto aporta con medidas sanitarias orientadas a impactar sobre problema. El problema se presenta como perfil de riesgo en la introducción.</p> | <p>Es importante debido la Chancaca es un producto de consumo tradicional, y debido a las nuevas tendencias de consumo de edulcorantes diferentes a la azúcar blanca granulada.</p> |
| <p>3. Otro punto de vista, es realizar una estimación respecto si la norma mejorará o empeorará el flujo de intercambio internacional de este tipo de alimentos, en mediano y largo plazo.</p> | <p>Es una actividad que sin duda beneficiara a nivel de los países latinoamericanos el comercio y requisitos que deben cumplir estos productos.</p> |
| <p>4. Examinar si las medidas propuestas en el anteproyecto son factibles de aplicar por los países en desarrollo. La mirada puede hacerse desde el punto de vista de la complejidad técnica, de las capacidades de laboratorio instaladas y del costo económico, entre otros aspectos.</p> | <p>Es factible, en cuanto a las metodologías analíticas estas no presentan dificultades mayores o un alto costo.</p> |
| <p>5. Que no sea una repetición de otras normas ya existentes.</p> | <p>-----</p> |
| <p>6. En el caso que haya falencias, como ejemplo aspectos que faltan o existen, pero están insuficientemente tratados, proponer la forma cómo se podría mejorar o complementar con aportes nacionales y regionales.</p> | <p>(Ver anexo acompañante).</p> <ol style="list-style-type: none"> 1) Ampliar el título del anteproyecto y objetivo a la Remolacha azucarera (<i>Beta vulgaris</i> variedad <i>saccharina</i> o <i>sacharifera</i>). 2) Se sugiere mantener un glosario con las denominaciones aplicadas en otras regiones. 3) Existen límites mínimos establecidos en el cuadro 1 y 2 que no son coincidentes, al parecer corresponden a LMP y a valores mínimos. 4) Se sugiere incorporar alcances en los requisitos para: Plomo, cadmio y arsénico, así como a materias insolubles y polarización. 5) Siendo un producto de origen vegetal sin mayores procesamientos debería incorporarse métodos para plaguicidas. 6) Apoyar la propuesta de Costa Rica dado que en Chile entrará en vigencia la ley de alérgenos y que propone para sulfito lo siguiente: “<i>Los siguientes alimentos y sus derivados deberán ser etiquetados en forma obligatoria de acuerdo a lo establecido en la letra h del artículo N° 107 del Reglamento Sanitario de los Alimentos:Sulfito en concentraciones de 10 mg/kg o más</i>”. En este sentido es relevante lo indicado por Costa Rica “proporcionar información al consumidor hipersensible y Según lo establecido como fundamento en Chile: “Que existe una necesidad justificada de salud para etiquetar los alimentos y sus derivados que causen alergias e intolerancias alimentarias.” |
| <p>7. Propuesta de posición nacional</p> | <p>Apoyar el documento y sugerir mejoras señaladas.</p> |

**ANTEPROYECTO DE NORMA DEL CODEX PARA EL
JUGO DE AZÚCAR CRUDA DESHIDRATADO NO CENTRIFUGADO**

1. ÁMBITO DE APLICACIÓN

Esta Norma se aplica a jugo de caña de azúcar o remolacha azucarera deshidratado no centrifugado, según se define en la sección 2 que está destinado al consumo directo, inclusive para fines de hostelería o para re-ensado en caso necesario como también al producto cuando se indique que está destinado a una elaboración ulterior.

2. DEFINICIÓN DEL PRODUCTO

Se entiende por “jugo de azúcar *cruda* deshidratado no centrifugado” el producto de cualquier forma o presentación proveniente de la evaporación del jugo de caña de azúcar *Saccharum officinarum* L ó *remolacha azucarera Beta vulgaris variedad saccharina o sacharifera.*, que contiene microcristales subhedrales o anhedrales amorfos no visibles al ojo humano, que mantiene sus elementos constitutivos como sacarosa, glucosa, fructosa y minerales, y que no proviene de la reconstitución de sus elementos (azúcares).

3. COMPOSICIÓN ESENCIAL Y FACTORES DE CALIDAD

3.1 COMPOSICIÓN ESENCIAL

3.1.1 Ingredientes básicos

Jugo de caña de azúcar *Saccharum officinarum* L.

Remolacha azucarera Beta vulgaris variedad saccharina o sacharifera.

3.2 FACTORES DE CALIDAD

3.2.1 Color

~~El “jugo de caña de azúcar deshidratado no centrifugado”~~ Puede presentar diferentes colores característicos del producto, dependiendo, entre otros aspectos de la variedad de la caña de azúcar o *remolacha*, las condiciones agro-ecológicas del cultivo y las tecnológicas del proceso de elaboración.

3.2.2 Sabor y Aroma

El sabor y el aroma deberán ser los característicos del producto.

3.2.3 Defectos

El producto deberá estar exento de defectos, tales como materias extrañas, ablandamiento. No puede estar fermentado ni presentar ataques de hongos e insectos.

3.2.3 Características físicas y químicas

~~El “jugo de caña de azúcar deshidratado no centrifugado”~~ Deberá cumplir con lo indicado en los cuadros 1 y 2, según corresponda.

Cuadro 1. Requisitos físico químicos para el “jugo de caña de azúcar deshidratado no centrifugado” sólido Requisito

| Min. | Valor | |
|--|----------------|------------------------------|
| | Max. | |
| Humedad, fracción en masa en% | -- | 9,0 |
| Cenizas <i>conductimétricas</i> , fracción en masa en% | 0,8 | Establecer el valor adecuado |
| Azúcares totales (sacarosa) fracción en masa en% | 80% | ----- |
| Requisito | Valor | |
| | Min | Max |
| Azúcares reductores (glucosa) fracción en masa en% | 5,5 | -- |
| Proteínas en% (N ×6,25) | 0,2 | -- |
| Potasio en mg/100 g | | 100,0 |
| Calcio en mg/100 g | | 10,0 |
| Fósforo en mg/100 g | | 5,0 |
| Hierro en mg/100 g | 1,5 | |

Cuadro 2. Requisitos físico químicos para el “jugo de caña de azúcar deshidratado no centrifugado” granulado

| Requisito | Valor | |
|--|-------|-------|
| | Min. | Max. |
| Humedad, fracción en masa en% | -- | 5,0 |
| Cenizas, fracción en masa en% | 1,0 | -- |
| Azúcares totales (sacarosa) fracción en masa en% | -- | 93,0 |
| Azúcares reductores (glucosa) fracción en masa en% | 5,0 | -- |
| Proteínas en% (N x6,25) | 0,2 | -- |
| Potasio en mg/100 g | | 100,0 |
| Calcio en mg/100 g | | 10,0 |
| Fósforo en mg/100 g | | 5,0 |
| Hierro | 1,5 | |

4. ADITIVOS ALIMENTARIOS**(Se apoya incluir la opción 1)**

Solo la clase de aditivo alimentario indicada a continuación está tecnológicamente justificada y puede ser empleada en los productos amparados por esta Norma. Dentro de esta clase de aditivo solo los indicados pueden ser empleados y solo para la función descrita y dentro de los límites especificados.

4.1 Reguladores de la Acidez

| No. SIN | Nombre del aditivo alimentario | Dosis máxima |
|---------|--------------------------------|--------------|
| 526 | Hidróxido de Calcio | BPF |

5 CONTAMINANTES**5.1 METALES PESADOS Y TOXINAS**

Los productos a los que se aplican las disposiciones de la presente norma deberán cumplir con los niveles máximos de la Norma General del Codex para los Contaminantes y las Toxinas presentes en los Alimentos y Piensos (CODEX STAN 193-1995).

5.2 RESIDUOS DE PLAGUICIDAS

Los productos a los que se aplican las disposiciones de la presente norma deberán cumplir con los límites máximos de plaguicidas establecidos por la Comisión del *Codex Alimentarius*.

6 HIGIENE

6.1 Se recomienda que los productos amparados por las disposiciones de la presente norma se preparen y manipulen de conformidad con las secciones apropiadas del Código Internacional Recomendado de Prácticas - Principios Generales de Higiene de los Alimentos (CAC/RCP 1-1969) y otros textos pertinentes del Codex, tales como códigos de prácticas y códigos de prácticas de higiene.

6.2 El producto deberá ajustarse a los criterios microbiológicos establecidos de conformidad con los Principios para el Establecimiento y la Aplicación de Criterios Microbiológicos a los Alimentos (CAC/GL 21-1997).

7. ETIQUETADO

El producto amparado por las disposiciones de la presente norma deberá etiquetarse de conformidad con la Norma General del Codex para el Etiquetado de los Alimentos Prensados (CODEX STAN 1-1985). Además, se aplicarán las siguientes disposiciones específicas:

7.1 NOMBRE DEL PRODUCTO

7.1.1 El nombre del producto ~~“jugo de caña de azúcar deshidratado no centrifugado”~~ podrá ir seguido por el nombre corriente u ordinario aceptado en el país de origen o venta al por menor.

7.1.2 La forma de presentación deberá figurar como parte del nombre, según los casos:

- Jugo de caña de azúcar deshidratado no centrifugado (nombre corriente del producto, por ejemplo “Panela Sólida”).
- Jugo de caña de azúcar deshidratado no centrifugado (nombre corriente del producto, por ejemplo “Panela Granulada”).
- Jugo de **remolacha azucarera** deshidratado no centrifugado (nombre corriente del producto, por ejemplo “Chancaca”).

Nota: De acuerdo al país o región se podrá del mismo nombre corriente del producto para orientación, a continuación se mencionan los nombres informados que se utilizan en algunos países o regiones: Chancaca (Argentina, Chile, Ecuador y Perú); Kokuto (Japón); Gur o Jaggery (India); Jaggery y Khandsari (Asia del Sur); Panela (Bolivia, Colombia, Honduras, Nicaragua, Panamá y otros); Papelón (Venezuela y algunos países de América Central); Piloncillo (México); Rapadura (Brasil y Cuba); Tapa de Dulce, Dulce Granulado (Costa Rica).

7.2. ALÉRGENOS

Se deberá etiquetar la presencia de Sulfito en concentraciones de 10 mg/kg o más.

8. MÉTODOS DE ANÁLISIS Y MUESTREO

| Disposición | Método | Principio | Tipo |
|--|---|---|------|
| Humedad | AOAC 925.45 ICUMSA GS2/1/3-15 | Pérdida por secado | I |
| Cenizas conductimétricas | ICUMNSA GS 1/2/3/4/7/8-23 | Conductimetría | I |
| Azúcares totales (sacarosa) y reductores (glucosa) | AOAC 923.09 ICUMSA GS1/3/7-3 | Volumetría | III |
| Plomo y Cadmio | NMKL 139 (1991) AOAC 999.11 AOAC 997.15 | Espectrofotometría de absorción atómica | II |
| Polarización | ICUMSA GS1/2/3/9-1 | Polarimetría | II |
| Calcio, Hierro y Potasio | AOAC 985.35 | Espectrofotometría de absorción atómica por llama | IV |
| Fósforo | AOAC 995.11 | Colorimetría | III |
| Compuestos azufrados | AOAC 975.32 y AOAC 990.28 | Monier Williams | IV |
| Plaguicidas | AOAC 970.52 | GC | II |

COSTA RICA

Costa Rica desea externar su agradecimiento por la oportunidad de emitir los siguientes comentarios:

- Incorporar una sección 3.1.2, para que se lea de la siguiente manera:

3.1.2 Otros Ingredientes:

Se permite la adición de otros productos alimentarios, tales como nueces, maní, saborizantes, entre otros.

- En la sección 3.2.2 Sabor y Aroma, se sugiere mantener las presentaciones de saborizada y aromatizada.

Justificación:

Son otros ingredientes que pueden adicionarse para darle variedad al producto y que actualmente se comercializan, como por ejemplo: maní, semillas ó saborizantes artificiales.

3. En la sección 3.2.3 Defectos, Costa Rica considera importante mejorar la redacción de este párrafo, debido a que es confuso, de igual manera la aclaración de las materias extrañas que se pueden encontrar en el producto, tales como: impurezas de origen orgánico y mineral. Quedando el párrafo de la siguiente manera:

“El producto deberá estar exento de defectos tales como: materias primas (impurezas de origen orgánico y mineral), ablandamiento, no estar fermentado ni presentar ataques de hongos y plagas”.

4. En la sección 3.2.3 Características físicas y químicas, Costa Rica sugiere modificar el formato de los cuadros 1 y 2, para que su formato sea de la siguiente manera:

Cuadro 1. Requisitos físico químicos para el “jugo de caña de azúcar deshidratado no centrifugado” sólido

| Requisito | Valor |
|--|-------------|
| Humedad, fracción en masa en% | 9,0 (Máx) |
| Cenizas, fracción en masa en% | 0,8 (Min) |
| Azúcares totales (sacarosa) fracción en masa en% | 83,0 (Max) |
| Azúcares reductores (glucosa) fracción en masa en% | 5,5 (Min) |
| Proteínas en% (Nx 6,25) | 0.2 (Min) |
| Potasio en mg/100g | 100,0 (Min) |
| Calcio en mg/100g | 10,0 (Min) |
| Fósforo en mg/100g | 5,0 (Min) |
| Hierro en mg/100g | 1,5 (Min) |

Cuadro 2. Requisitos físico químicos para el “jugo de caña de azúcar deshidratado no centrifugado” granulado

| Requisito | Valor |
|--|-------------|
| Humedad, fracción en masa en% | 5,0 (Max) |
| Cenizas, fracción en masa en% | 1,0 (min) |
| Azúcares totales (sacarosa) fracción en masa en% | 93,0 (Max) |
| Azúcares reductores (glucosa) fracción en masa en% | 5,0 (min) |
| Proteínas en% (Nx 6,25) | 0,2 (Min) |
| Potasio en mg/100g | 100,0 (Min) |
| Calcio en mg/100g | 10,0 (Min) |
| Fósforo en mg/100g | 5,0 (Min) |
| Hierro en mg/100g | 1,5 (Min) |

5. En la sección 4 sobre Aditivos Alimentarios, Costa Rica no está de acuerdo con ninguna de las dos opciones, esto por cuanto en la descripción de la categoría 11.1.3 de la Norma General de Aditivos no se contempla el jugo de caña de azúcar deshidratado no centrifugado, siendo el nombre correcto de la categoría: “Azúcar blanco blando, azúcar moreno blando, jarabe de glucosa, jarabe de glucosa deshidratado y azúcar de caña sin refinar”.

De igual manera, Costa Rica considera que el producto a normar no es un azúcar, sino que es un producto utilizado para hacer bebidas o bien consumirlo tal y como se presenta. Por lo tanto no es un edulcorante, sino un producto terminado.

Costa Rica consulta a Colombia, en cual categoría ubicar este producto en caso de que se quiera incluir el uso de algún aditivo en este producto.

Por otro lado, Costa Rica apoya la observación de Japón con respecto a que el Hidróxido de Calcio tiene una función de coadyuvante de elaboración, por lo tanto no se tiene que incluir como aditivo.

6. En la sección 7. Etiquetado se sugiere modificar las secciones 7.1.1 y 7.1.2, para que se lean de la siguiente manera:

“7.1.1 El nombre del producto será el nombre corriente u ordinario aceptado en el país de origen o venta al por menor, el cual irá seguido por la denominación “jugo de caña de azúcar deshidratado no centrifugado”.

7.1.2 La forma de presentación deberá figurar como parte del nombre, según los casos:

- a) **Nombre corriente del producto, por ejemplo “Panela Sólida” (jugo de caña de azúcar deshidratado no centrifugado).**
- b) **Nombre corriente del producto, por ejemplo “Panela Granulada” (jugo de caña de azúcar deshidratado no centrifugado.)**

EUROPEAN UNION / UNION EUROPÉENNE / UNIÓN EUROPEA

The European Union and its Member States (EUMS) are offering the following comments:

The EUMS take note of the difficulties related to the clear placement of the product in the food category system of the General Standard for Food Additives (GSFA). In this regard the EUMS maintain their position as expressed in Annex II to the CL 2012/35-CS.

In addition the EUMS would like to point out that the classification in the food category system should take into consideration not only the product description but also the similarities in the technological need since the GSFA food category system is used also to simplify the reporting of food additive uses.

For the time being only INS 526 Calcium Hydroxide is proposed as an acidity regulator for the standard under consideration. The EUMS are of the view that firstly it has to be clarified whether Calcium Hydroxide is used as a food additive or as a processing aid (as indicated by one Codex Member in Annex II to the CL 2012/35-CS). It has to be noted that acidity regulators are not currently permitted in the GSFA food subcategories falling under the head category “11.0 Sweeteners, including honey” and there is also no proposal for the inclusion of acidity regulators in the step procedure with the exception of the subcategory “11.4 Other sugars and syrups”. The EUMS suggest that only when the status of Calcium Hydroxide has been clarified the discussion on the Options under the section 4 of the draft standard would be relevant.

Nevertheless, as for the options themselves (and only if it is confirmed that Calcium Hydroxide is used as a food additive) the EUMS would prefer the Option 1 – i.e. to list Calcium Hydroxide in the Commodity Standard. This would allow better progress of the standard development in the situation when Calcium Hydroxide is neither permitted nor in the step process of the subcategories falling under the GSFA head category 11. As for the Option 2 in the EUMS view it is not appropriate to refer to acidity regulators listed in the GSFA Table 3 since all subcategories of the category 11 (except for 11.6 Table-top sweeteners) are listed in the Annex to Table 3 – i.e. Table 3 does not apply to these subcategories and the use of additives listed in Table 3 is governed by the provisions in Tables One and Two.

INDIA / INDE

SPECIFIC COMMENTS

2. Product Definition:

The definition may be modified as follows:

“Non-centrifugated dehydrated sugar cane juice” is defined as the product, in any form or presentation, obtained **after processing and** evaporation of sugar cane juice *Saccharum officinarum* L. which contains amorphous subhedral or anhedral microcrystals, invisible to the naked eye, which maintains its constituent elements, such as saccharose, glucose, fructose and minerals and which is not obtained from the reconstitution of its elements (sugar).

Rationale:

In the Indian context, the manufacture of jaggery involves some processing of sugar cane juice and scum removal operations before actual evaporation. Since the current product definition does not include the processing step, the same has been included in the definition.

3. Quality Factor:

3.2.4. Physical and Chemical characteristics:

The table 1 and 2 should be modified as below:

Table1. Physical-chemical requirements for solid “non-centrifugated dehydrated sugar cane juice”

| Requirement | Value | |
|--|-------------|-------------|
| | Min. | Max. |
| Moisture, mass fraction% | -- | 9.0 |
| Ashes, mass fraction% | 0.8 | 3.0 |
| Total sugars(saccharose), mass fraction% | 75.0 | 83.0 |
| Reducing sugar (glucose), mass fraction% | 5.5 | 10.0 |
| Proteins% (N*6.25) | 0.2 | -- |
| Potassium mg/100g | 100.0 | -- |
| Calcium mg/100g | 10.0 | -- |
| Phosphorous mg/100g | 5.0 | -- |
| Iron mg/100g | 1.5 | -- |

Table2: Physical-chemical requirements for granulated “non-centrifugated dehydrated sugar cane juice”

| Requirement | Value | |
|--|-------------|------------|
| | Min. | Max. |
| Moisture, mass fraction% | -- | 5.0 |
| Ashes, mass fraction% | 1.0 | 3.5 |
| Total sugars(saccharose), mass fraction% | 85.0 | 93.0 |
| Reducing sugar (glucose), mass fraction% | 5.0 | 7.5 |
| Proteins% (N*6.25) | 0.2 | -- |
| Potassium mg/100g | 100.0 | -- |
| Calcium mg/100g | 10.0 | -- |
| Phosphorous mg/100g | 5.0 | -- |
| Iron mg/100g | 1.5 | -- |

Rationale:

For all quality parameters their minimum values and in case of contaminants, their maximum limits are generally mentioned in any standard. In the present case no minimum limit is mentioned for Saccharose, which is quality parameter, in Table 1 and 2.

Since reducing sugar are considered as quality parameter as well as contaminant after a certain value, its maximum limit shall also be mentioned. Similarly, the maximum limit for ash% shall also be mentioned in both tables. Hence, the limits (approximate) for various parameters have been proposed.

8. Methods of analysis and Sampling:

a) The methods mentioned in the draft for various requirements shall be as prescribed by ICUMSA.

Rationale:

The International Commission for Uniform Methods of Sugar Analysis (ICUMSA) is an international standards body that publishes detailed laboratory procedures for the analysis of sugar.

b) The method of analysis and sampling for sulphites is mentioned but its limits have not been mentioned in Table 1 and 2.

JAPAN / JAPON / JAPÓN

Specific Comments

1. Title of the standard

Footnote on names of non-centrifugated dehydrated sugar cane juice used in certain regions

When the footnote be decided to be inserted in the standard, “kokutou and kurozatou” should be included as the names used in Japan.

2. Section 3.2.4 Physical and chemical characteristics

Tables 1 and 2: Physical-chemical requirements for solid/granulated “non-centrifugated dehydrated sugar cane juice”

- Japan suggests to set maximum values for reducing sugars (glucose) instead of minimum values as proposed in the draft. Considering the fact that high content of reducing sugars in the product causes caking and discoloring of the products, and therefore, content of reducing sugars in the product should be kept as low as possible. That is why, it is not reasonable to set minimum value for reducing sugar. For your reference, Japan would like to inform that the range of the content of reducing sugars in Kokutou /Kurozatou is 1.52% - 3.95%.
 - From the above mentioned viewpoint, Japan seeks clarification on the reason why the minimum value should be specified for reducing sugars (glucose) in the Standard.
3. Section 4. Food Additives
- In Japan, Calcium hydroxide is used as processing aid to precipitate impurities from sugar cane juice because it does not have technological function in the final product. But if other member countries use Calcium hydroxide as acidity regulator, Japan can support Option 1.

Rationale

Only the food additives whose use is technologically justified should be listed in this standard.

The list of food additive According to the General Standard for Food Additives (GSFA), sulfites are allowed to use in food category 11.1.3. Since no information is provided to justify the use of sulfite, it is not possible for the committee to decide whether the use of those additives is technologically justified or not.

MEXICO / MEXIQUE / MÉXICO

En respuesta a la Carta Circular CL 2012/35-CS, mediante la cual se solicitan observaciones en el Trámite 3 del Procedimiento sobre el Anteproyecto de Norma del Codex para Jugo de Caña de Azúcar Deshidratado No Centrifugado, México somete al Comité del Codex sobre Azúcares las siguientes consideraciones:

1. Nos oponemos encarecidamente a la denominación que se hace de la “PANELA” como JUGO DE CAÑA DE AZÚCAR DESHIDRATADO NO CENTRIFUGADO.

Lo anterior, en virtud de que se debiera respetar la denominación de origen del país donde se produzca, la utilización JUGO DE CAÑA DE AZÚCAR DESHIDRATADO NO CENTRIFUGADO, conlleva el englobar tanto a un sólido conformado de una forma geométrica, como a un polvo producido moliendo panelas denominado “AZÚCAR AMORFO”, el cual es producido por Brasil y cuyo proceso fue establecido y adoptado por algunos países occidentales hace más de 200 años.

2. En el caso específico de nuestro país pudiera confundirse la terminología con otras calidades de azúcar fabricadas de manera local como es el caso del AZÚCAR MICROCRISTALIZADO.

PHILIPPINES / FILIPINAS

General Comments:

1. The Philippines would like to bring to the attention of the Committee to include **Muscovado** (Philippines) in the list of names for this commodity as indicated in the footnote.
2. The Philippines proposes to amend “Non-Centrifugated Dehydrated Sugar Cane Juice” to “**Non-Centrifugal Cane Sugar**”.

Rationale: We are developing a standard for sugar, not for sugar cane juice, hence delete the word “juice.” “Non-centrifugal” clearly describes the *distinguishing* characteristic of this type of sugar compared to other sugars. “Cane sugar” will specifically identify the commodity in development and its primary source which is sugarcane. Ergo, “*Non-centrifugal cane sugar.*”

Specific Comments:

1. Scope:

The Philippines would like to seek clarification on the phrase “including for catering purposes or repacking if required”. We deemed that this phrase is misleading. We propose to adopt the scope similar to Codex Standard for Sugars (Codex Stan 212-1999), to wit:

This Standard applies to “Non-Centrifugal Cane Sugar” intended for human consumption without further processing. It includes “Non-Centrifugal Cane Sugar” sold directly to the final consumer and used as ingredients in foodstuffs.

2. Product Definition

For clarity, the Philippines propose the following edits to the definition:

“~~Non-centrifugated-centrifugal cane sugar dehydrated sugar cane juice~~” is defined as the product, in any form or presentation, obtained from the evaporation of sugarcane juice (*Saccharum officinarum* L.) juice, which contains amorphous subhedral or anhedral microcrystals, invisible to the naked eye, which maintains its constituent elements, such as ~~saccharose~~, sucrose, glucose, fructose and minerals, and which is not obtained from the reconstitution of its primary components. ~~elements (sugars)~~.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 ESSENTIAL COMPOSITION

The “Non-Centrifugal Cane Sugar” is essentially composed of sucrose and reducing sugars.

3.1.1 Basic ingredients

Sugarcane juice (*Saccharum Officinarum* L.) juice

3.2 QUALITY FACTORS

~~3.2.1~~ **Colour**

~~“Non-centrifugated dehydrated sugar cane juice” may exist in various colours characteristic of the product, depending, among other aspects, on the sugar cane variety, the agro-ecological conditions of cultivation and the technologies of the manufacturing process.~~

~~3.2.2~~ **Flavour and aroma**

~~The flavour and aroma shall be characteristic of the product.~~

~~3.2.3~~ **Defects**

~~The product shall be free from defects such as foreign materials or softening. It may not be fermented nor show signs of attack by fungi or insects.~~

The Philippines is proposing to simplify the text under 3.2 Quality Factors as follows;

The “Non-Centrifugal Cane Sugar” should have the characteristic aroma and flavour of the sugarcane from where it is made and colour ranging from golden yellow to dark brown. It should also be free from objectionable sensory characteristics.

3.2.4 Physical and chemical characteristics

The Philippines is also in the view that only the following main physical and chemical characteristics are essential and should be included in the table. Some terms are changed for consistency with the Codex Standard for Sugars (Codex Stan 212-1999) and ICUMSA methods of analysis and nomenclature (which is the appropriate test method). Values are put in square brackets subject for submission of data from member countries and approved methods of analysis of which the Philippines have herein stated.

“~~Non-centrifugated-centrifugal cane sugar dehydrated sugar cane juice~~” shall fulfill the conditions shown below in ~~tables 1 and 2~~, as appropriate (two tables are combined for clarity).

Table 1. Physical-chemical requirements for “Non-Centrifugal Cane Sugar”

| Requirement | Value | |
|---|------------|------------------------------|
| | Solid Lump | Granulated Powder /Amorphous |
| Total sugars (saccharose) mass fraction% Polarization °Z, minimum | [57.0] | [77.0] |
| Reducing sugars, (glucose) mass fraction%, maximum | [28.0] | [12.0] |
| Moisture, mass fraction% Loss on drying, % maximum | [2.0] | [4.20] |
| Ashes, mass fraction Conductivity Ash,%, maximum | [3.0] | [3.0] |

4. Food Additives

Calcium hydroxide (526) is *primarily* used as a processing aid in order to precipitate impurities from the sugarcane juice. Therefore, Calcium hydroxide (526) should be removed from the section 4.1 “Acidity regulators” and listed in the new sub section “Processing Aid.” To wit:

Processing Aid - Clarifying agents/filtration aid

| INS No. | Substance | Level |
|---------|-------------------|-------|
| 526 | Calcium hydroxide | GMP |

7. Labelling

The product covered by the provisions of this standard shall be labelled in accordance with the General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985). In addition, the following specific provisions shall apply:

7.1 NAME OF THE PRODUCT

7.1.1 The name of the product ~~“non-centrifugated dehydrated sugar cane juice”~~ “Non-centrifugal cane sugar” may be followed by the common or ordinary name accepted in the country of origin or of retail sale.

7.1.2 The form of presentation shall be included as part of the name, as follows:

- ~~Non-centrifugated dehydrated sugar cane juice~~ Non-centrifugal cane sugar (common name of the product, e.g. “Solid Lump Panela”)
- ~~Non-centrifugated dehydrated sugar cane juice~~ “Non-centrifugal cane sugar” (common name of the product e.g. “Granulated Powder (or Amorphous) Panela”)

8. METHODS OF ANALYSIS AND SAMPLING

In consonance to the changes we proposed on physical and chemical properties for ~~panela~~ “Non-centrifugal cane sugar”, we are hereby submitting the following essential composition and quality factors including methods of analysis:

| Requirement | Method | Principle | Type |
|---|------------------------------|--|------|
| Total sugars (saccharose) mass fraction% Polarization °Z, minimum | ICUMSA GS1/2/3/9-1(2007) | Polarimetry | |
| Reducing sugars, mass fraction%, maximum | GS1/3/7-3 (2005) | Titrimetry (Lane and Eynon Constant- Volume) | |
| Moisture, mass fraction% Loss on drying,% maximum | ICUMSA GS2/1/3/9-15(2007) | Gravimetry | |
| Ashes Conductivity Ash,% maximum | ICUMSA GS1/3/4/7/8-13 (1994) | Conductimetry | |

UNITED STATES OF AMERICA / ÉTATS-UNIS D'AMÉRIQUE / ESTADOS UNIDOS DE AMÉRICA

“Explanatory Notes on the Revised Text”

Name of Product (para. 6-7)

1. Para. 6 - We recommend that the term “non-centrifugated”, wherever it appears in these documents, be replaced with the term “non-centrifugal” which is in standard use in the sugar industry around the world and is used by USDA when they list statistics for non-centrifugal sugars as opposed to centrifugal sugars (i.e., raw sugar). The term “non-centrifugated” is not an appropriate term in standard English.
2. Para. 6 & 7 – The US agrees that it would be appropriate to include the regional names in a footnote. The US also agrees, as stated in para. 6, that CCS should confirm that these regional names include products that are within the scope of the commodity standard. However, it is recommended that the listed names should be characterized as examples, and not an exhaustive list. This provides flexibility, should additional products be introduced in the future. The footnote could state, for example: “This product is known by different names in certain regions. For example, as Chancaca (Chile, Ecuador and Peru) ...”

Additionally, we recommend that the initial list being circulated for country comment include the terms “raspadura”, “atado dulce”, “empanizado” and “panocha” along with the other names. These names should be subject to the same consultation and confirmation by Codex members as described in Paragraph 6.

Physical-chemical requirements (para. 8)

3. Para. 8 - We recommend that the term “saccharose” be replaced throughout the document with the term “sucrose”.

Food Additives (para. 9-15)

4. Para. 11 - With regard to the appropriate food category (FC) in the General Standard for Food Additives (GSFA), it has been proposed that “panela” could be included in FC 11.1.3 (Soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw cane sugar).³ It should be noted that the US provided advice to the Codex Secretariat on the relevant FC for “panela,” and had proposed that FC 11.1.3 would be appropriate.⁴

The EU and CEFS commented that “panela” may be more appropriately included under FC 11.4 (Other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)).⁵ The products in FC 11.4 are primarily syrups and sugars that are used as toppings or decorations. It does not appear that “panela” fits this description.

³ The descriptor for FC 11.1.3 states: “Soft white sugar is fine grain purified, moist sugar, that is white in colour. Soft brown sugar is fine grain moist sugar that is light to dark brown in colour. Glucose syrup is a purified concentrated aqueous solution of nutritive saccharides derived from starch and/or inulin. Dried glucose syrup is glucose syrup from which water has been partially removed. Raw cane sugar is partially purified sucrose crystallized from partially purified cane juice without further purification.”

⁴ E-mail of March 23, 2012 from S. Carberry (USA) to A. Bruno (Codex Secretariat).

⁵ The descriptor for FC 11.4 states: “Includes all types of table syrups (e.g., maple syrup), syrups for fine bakery wares and ices (e.g., caramel syrup, flavoured syrups), and decorative sugar toppings (e.g., coloured sugar crystals for cookies).”

The Philippines' comment proposed that "panela" be included under FC 11.2 (Brown sugar excluding products of food category 11.1.3).⁶ The Philippines notes that "panela" is a brown sugar that is more closely related to Demerara sugar; both are produced directly from cane juice. They also note that "panela" is different from soft white sugar and soft brown sugar, which are specialty sugars obtained from refined sugar.⁷ **Upon revisiting the definition of "brown sugar" and "panela," the US now believes that "panela" may be more appropriately included under FC 11.2.**

WSRO noted in their comment that CCS should first agree on the scope of the standard for "panela" before it is included in the GSFA. Since the definition of the product could potentially affect the FC in which "panela" is placed in the GSFA, *the CCS, which has the appropriate expertise, should: (i) consider whether FC 11.1.3 is the appropriate FC for "panela" in light of the comment from the Philippines, above; and (ii) propose a revision to the relevant FC title and descriptor, as appropriate, for consideration and discussion by CCFA.* In proposing a revision to the FC descriptor, Japan's comment should be noted. It is not necessary to include the entire product description, as a citation to the commodity standard should be included.

IF CCS agrees that "panela" is more appropriately included in FC 11.2, this FC could be revised as follows (presuming that the name of the product is as in the proposed draft standard):

11.2 Brown sugar excluding products of food category 11.1.3: Includes large-grain, brown or yellow lump sugars, such as Demerara sugar, or non-centrifugal dehydrated sugar cane juice.^[1]

[1] Codex Standard for Non-Centrifugal Dehydrated Sugar Cane Juice (CODEX STAN XXX-YYYY).

5. Para. 12 With regard to the Food Additive Section of the proposed draft standard, the text of the proposed draft standard (Annex 1) proposes 2 options: (1) to list specific additives; and (2) to provide a general reference to the GSFA. Para. 12 indicates that only one additive is used in "panela": calcium hydroxide (INS 526), as an acidity regulator for use in accordance with good manufacturing practices (GMP). A brief technological justification was provided.

Whether CCS proposes specifically listing calcium hydroxide in the Food Additive Section of the commodity standard, or including calcium hydroxide in Tables 1 and 2 of the GSFA (consequence of including a general reference to the GSFA in the Food Additive Section of the commodity standard), *CCS should provide a technological justification for the use of calcium hydroxide as an acidity regulator in "panela" to CCFA.* This will facilitate CCFA either endorsing the provision in the commodity standard (Option 1), or recommending inclusion of the provision in the GSFA (Option 2).⁸

6. Para 13-15 - These paragraphs further discuss the options on proceeding with regard to the Food Additive Section of the proposed draft standard.

Option 2 (para. 14) is preferred, since it would require that: (i) the Food Additive Section of the commodity standard include a general reference to Tables 1 and 2 of the GSFA (citing the appropriate FC); and (ii) CCS request that CCFA include calcium hydroxide in the GSFA. This approach is in agreement with the approach recommended for the Food Additives Section of commodity standards in the Codex Procedural Manual.⁸ However, given the need for CCS and CCFA to resolve the issue regarding the appropriate FC for "panela," it does not appear that Option 2 (para. 14) would be easily implemented at the 45th CCFA.

Option 1 (para. 13) is the more feasible option at this time. This approach is acceptable, provided that CCS agrees that the specific listing of calcium hydroxide in the commodity standard would be replaced by a general reference to the GSFA once the appropriate FC for "panela" has been established, and that CCS requests that CCFA consider including the provision for calcium hydroxide in the GSFA. Thus, this option would ultimately achieve the same end as Option 2.

Japan's comment indicated that calcium hydroxide may actually be used as a processing aid, and not as an acidity regulator. CCS would need to reach a conclusion regarding the function of calcium hydroxide in "panela," so that it could be appropriately reported. If CCS determines that calcium hydroxide functions as a processing aid, it would need to be included only in the commodity standard. It would *not* be included in the GSFA, since processing aids are excluded from the GSFA. Processing aids are to be included in the database for processing aids that is currently under development by CCFA.

Regarding Table I in the proposed standard:

7. Table 1, Ashes is more correct as "Ash".
8. Table 1, we recommend that the table include a range of sucrose content, tentatively set at 80-90% sucrose. There should be a lower limit.

⁶ The descriptor for FC 11.2 states: "Includes large-grain, brown or yellow lump sugars, such as Demerara sugar."

⁷ Brown sugar is generally extracted directly from sugar cane, without full refining, and includes products such as Demerara and Turbinado sugars. "Panela" may be described as an unrefined whole cane sugar, typical in Central and Latin America, which is basically a solid piece of glucose and fructose obtained from the boiling and evaporation of sugar cane juice. [Definitions obtained from Wikipedia]

⁸ REP 12/FA, para. 43. See also: Codex Procedural Manual, 20th Ed. (2012) Section II: Elaboration of Codex Texts, Format for Codex Commodity Standards, pp. 51-52.

9. Table 1, we recommend eliminating the minimum requirements for protein, potassium, calcium, phosphorus and iron. There is no way to control the levels of these substances in the process, and these substances cannot be added. We would therefore question the need to test for these constituents. In this regard, we support the position of the Philippines.
10. We recommend that ICUMSA methods be used wherever possible. AOAC methods for sugars tend to be outdated, and should be supplanted by ICUMSA methods, which are specific for sugar products and are maintained up to date. ICUMSA does not have a General Subject for Panela style products, but it would probably fall under General Subject 3, Specialty Sugars.
11. We recommend that the characteristic golden/brown color be specified in the definition.

**EUROPEAN ASSOCIATION OF SUGAR PRODUCERS / COMITÉ EUROPÉEN DES FABRICANTS DE SUCRE /
COMITÉ EUROPEO DE FABRICANTES DE AZÚCAR-(CEFS)**

In response to Codex document CL 2012/35-CS, CEFS (Comité Européen des Fabricants de Sucre), on behalf of all European sugar producers, would like to provide comments on the Proposed Draft Codex Standard for Non-Centrifugated Dehydrated Sugar Cane Juice.

CEFS welcomes the new name of the product “non-centrifugated dehydrated sugar cane juice” instead of “panela”, as it reduces the risk that the product will be mistaken for brown sugars.

However, CEFS does not support the suggestion to include “non-centrifugated dehydrated sugar cane juice” in category 11.1.3 of the General Standard for Food Additives (GSFA).

Food subcategory 11.1.3 of the GSFA (*soft white sugar, soft brown sugar, glucose syrup, dried glucose syrup, raw cane sugar*) exclusively contains sugars covered by the Codex Standard for Sugars (Codex Stan 212-1999 (amended 2001)). These sugars have all undergone some purification or clarification steps (even the raw cane sugar, as defined by the Codex Standard for Sugars, is partially purified). Here, non-centrifugated dehydrated sugar cane juice seems only to be thickened juice. This makes it thus closer to products like maple syrup than sugar.

As a result, CEFS respectfully reiterates its comment that it would be more appropriate to include non-centrifugated dehydrated sugar cane juice in the Food Category 11.4 (*other sugars and syrups (e.g., xylose, maple syrup, sugar toppings)*).