

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
HEALTH
ORGANIZATION



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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

21st SESSION

OF

CODEX COMMITTEE ON PROCESSED FRUITS
AND VEGETABLES

AT

TEXAS, U.S.A.

FROM

23-27 SEPTEMBER 2002

Government of India position

ON

Agenda no. 1, 3(a) to 3(e) , 4(a), 4(b)

GOVERNMENT OF INDIA COMMENTS

AGENDA ITEM NO. 1: Adoption of the Provisional Agenda

- The standards laid down for various canned fruit and vegetable products are too descriptive and difficult to compliance by the developing and underdeveloped countries. The mandate of the Codex is to focus on food safety rather than food quality standards. Therefore, approach of Codex should be towards horizontal standards (safety standards) rather than vertical standards (product standards).
- The sizes of the canned products mentioned under paragraphs ‘Styles’ and ‘Defects and allowances’ are unnecessary and may act as a trade barrier in international trade as the developing/underdeveloped countries do not have such sophisticated machineries / technologies for adherence to such specifications. There is no scientific justification indicating that difference in size of the pieces may affect the safety of the consumer. The decision on these parameters should be left on the national Government. In view of this, the paragraphs pertaining to “**Styles**” and “**Defect and Allowances**” where ever it appears in the standards , may be deleted and may be substituted with “ **The product should be uniform in size to the extent possible.**”
- As a general principle, Codex standard should not be restricted to particular edible species only. All edible species including those grown in developing countries should be included. Alternately, decision on edible species may be left to National Governments.

AGENDA ITEM NO. 3(A): Draft Codex Standard for Canned Bamboo Shoots (Alinorm 01/27-Appendix V)

Para 2.2: SPECIES

The species of edible variety bamboo shoots should not be restricted to the varieties mentioned in the draft standards. There are several other edible varieties grown in various countries and are not covered in the draft standards. Some of the edible varieties of Indian origin which are not mentioned in the draft standards are as under:

Schizostachyum dullooa, Arundinacla, khasiana, Bambusa cacharensis, Chinnobambusa callosa

The above varieties may also be included in the list. However, Government of India is of the view that selection of edible varieties may be left on the National Governments and this Para may be replaced as under:

“Any edible species of bamboo shoots may be used for canning purposes”.

Para 2.3: Styles

This Para may be deleted for the reasons mentioned in agenda item no. 1.

Para 3.2: Packing Media

The word “oil” may be replaced with the word “Edible oils”. The word “Vinegar or lactic fermentation liquid” needs to be defined in terms of acidity and other quality parameters as the Vinegar is manufactured by various methods and named as brewed vinegar, synthetic vinegar etc.

Para 3.3: Other Permitted Ingredients

The word “Aromatic Plants” is a general term and may include edible or non-edible varieties both. Therefore, “Aromatic Plants” needs to be defined clearly and carefully.

Para 3.4.1: Other quality factors

This Para may be deleted as it is too descriptive and general quality criteria has already been defined under Para 3.4 which is sufficient to define the quality parameters.

Para 3.4.7: Defects and allowances

This paragraph may be deleted for the reasons mentioned in agenda item No.1.

Para 8.1.2: Minimum drained weight

The drained weight for all styles should be uniform. Therefore, this paragraph may be amended as follows:

“The drained weight shall not be less than 55% of the net weight of the contents”.
The sieve size may also be specified for determination of drained weight such as 20.3 X 20.3 cms having 8 meshes per 2.5 cms.

Agenda Item No.3 (b) – Draft Codex Standard for Pickled products (ALINORM 01/27-Appendix VI)

Para 1 – SCOPE

The standards of pickled cucumber and kimchi may also be clubbed with this standard to have unified standards of all categories of pickled products.

Para 3.1.2: Optional ingredients

The ingredients derived from animal origin may be declared on the label in accordance with the provisions of food laws prevailing in various countries to this effect.

Para 4: Food additives

The limits for Sulphur dioxide and its salts should be 100 mg/kg instead of 30 mg/kg as mentioned in the draft standards.

Agenda item No.3 (c) - Draft Codex standard for Canned Stone Fruits - (ALINORM 01/27 Appendix VII)

Para 2.2: Species

The species of the fruits mentioned in the draft standards should not be restricted to particular variety. Therefore, this Para may be replaced as:

“Any edible species of the Apricot, peach, plum, cherry may be used for the purpose of canning”.

Para 2.3.1: Varietal types

There is no need to define distinct varietal types of the stoned fruits as this is too descriptive and unnecessary.

Para 2.4: Styles

This Para may be deleted for the reasons mentioned in agenda item no.1.

Para 3.4.1.4 – Uniformity of size

The whole paragraph may be replaced with the words as under:

“The fruit should be reasonably uniform in size”.

Para 3.4.1.6 – Allowances for Defects

This paragraph should be deleted for the reasons mentioned in agenda item No.1. This may be replaced as follows:

“ The product shall be reasonably free from defects”

Para 8.1.4 – Minimum drained weight

The standards for drained weight is too descriptive and should be limited to two categories only.

1. Drained weight for the products canned in liquid packing media – 55%
2. Drained weight for solid packs – 82%

AGENDA ITEM NO. 3(d): Draft Codex Guidelines for Packing Media for Canned Fruits (ALINORM 01/27-App.VIII)

The guidelines for packing media for canned fruits have already been adopted by the 16th Session of the Codex Alimentarius Commission. The standards for Packing Media has been published in Codex Alimentarius Volume 5A-1994-Page 285. Govt. of India is of the view that there is no need of laying down new guidelines for packing media . The old adopted guidelines may be simplified as follows and guidelines for packing media for canned vegetables may also be laid down :

PACKING MEDIA

A. For Thermally processed Fruits:-

Any of the following packing media may be used:

- | | | |
|--|---|---|
| Water | - | In which water is the sole packing medium. |
| Fruit Juice(Pulpy, turbid or clear) | - | In which its own juice or any other compatible fruit juice is the sole packing medium. |
| Mixed Fruit Juice | - | In which two or more compatible fruit juices, which may include its own juice, are combined in any proportion to form the packing medium. |
| Water & Fruit Juice(s) | - | In which water and its own juice, or water and any other juice (singly or in combination) are combined to form the packing medium. |

Any of the foregoing packing media may have one or more of the following Nutritive Sweeteners: sucrose, invert sugar syrup, dextrose, fructose, fructose syrup, dried glucose syrup, glucose syrup, Honey.

Dry nutritive sweeteners namely sucrose, invert sugar, dextrose and dried glucose syrup, may be added to solid packs without added liquid but with such slight amounts of water or natural juices as occur in the normal processing of the product.

- | | | |
|--------------|--|--|
| Syrup | | Mixtures of water and sugars and/or other carbohydrate sweeteners such as honey. |
|--------------|--|--|

Classification of packing media when nutritive sweeteners are added

When nutritive sweeteners are added to fruit juice(s), the total soluble solids of the packing media on cut-out shall be not less than 16° and shall be classified on the basis of the cut-out strength as follows:

- Lightly sweetened fruit juice(s) - Not less than 16° Brix
- Heavily sweetened fruit juice(s) - Not less than 21° Brix

When nutritive sweeteners are added to water or water and fruit juice(s) or water and nectar the liquid media shall be classified on the basis of the cut-out strength as follows:

- Slightly sweetened water) Not less than 10° Brix but less than
- Extra light syrup) 16° Brix
- Light Syrup - Not less than 16° Brix but less than 21° Brix
- Heavy Syrup - Not less than 21° Brix but less than 25° Brix.
- Extra heavy Syrup - Not less than 25° Brix

When nutritive sweeteners are added to water and fruit juice(s) and the minimum fruit juice content of the packing medium is not less than 40% m/m, the packing medium may be classified as a nectar provided the cut-out strength is not less than 16° Brix.

**AGENDA ITEM NO. 3(e): Draft Codex Standards for Aqueous Coconut Products
(CL 2002/19-PFV)**

Government of India is of the view that one more category relating to tender coconut water may be added under Para-2 concerning description.

Para 2.1.7 - Tender coconut water

The UN Food & Agriculture Organisation (FAO) has applied for a patent on a new technology that would allow manufacturers to bottle coconut water i.e., biologically pure, tasty and full of salts, sugars and vitamins. The United Kingdom has granted a patent to FAO on the new technology. The new technology holds tremendous promise for tropical countries. Countries that process or export coconuts and small farmers who grow them will be the main beneficiaries of the newly patented technology. The companies in the beverage industry have already shown interest.

Today, most coconut water is still consumed fresh in tropical coastal areas. Once exposed to air, the liquid rapidly loses most of its nutritional characteristics and begins to ferment. But, the production of coconut beverages such as tender coconut water will benefit the small farmers as well as countries that are exporting coconut products. A document showing the benefits and nutritional composition of coconut water is enclosed.

TENDER COCONUT WATER

The water of tender coconut, technically the liquid endosperm, is the most nutritious wholesome beverage that the nature has provided for the people of the tropics to fight the sultry heat. It has caloric value of 17.4 per 100gm.

"It is unctuous, sweet, increasing semen, promoting digestion and clearing the urinary path," says Ayurveda on tender coconut water (TWC).

Numerous medicinal properties of tender coconut water reported are:-

- Good for feeding infants suffering from intestinal disturbances.
- Oral rehydration medium
- Contains organic compounds possessing growth promoting properties
- Keeps the body cool
- Application on the body prevents prickly heat and summer boils and subsides the rashes caused by small pox, chicken pox, measles, etc.
- Kills intestinal worms
- Presence of saline and albumen makes it a good drink in cholera cases
- Checks urinary infections.
- Excellent tonic for the old and sick
- Cures malnourishment.
- Diuretic
- Effective in the treatment of kidney and urethral stones
- Can be injected intravenously in emergency case.
- Found as blood plasma substitute because it is sterile, does not produce heat, does not destroy red blood cells and is readily accepted by the body.
- Aids the quick absorption of the drugs and makes their peak concentration in the blood easier by its electrolytic effect.
- Urinary antiseptic and eliminates poisons in case of mineral poisoning.

"It's a natural isotonic beverage with the same level of electrolytic balance as we have in our blood. It's the fluid of life, so to speak," says Mr. Morton Satin, Chief of FAO's Agricultural Industries and Post Harvest Management Service.

The major chemical constituents of coconut water are sugars and minerals and minor ones are fat and nitrogenous substances.

Analysis of Mature and Tender Coconut Water

	<u>Mature Coconut Water</u>	<u>Tender Coconut Water</u>
Total solids%	5.4	6.5
Reducing sugars %	0.2	4.4
Minerals %	0.5	0.6
Protein %	0.1	0.01
Fat %	0.1	0.01
Acidity mg %	60.0	120.0
pH	5.2	4.5
Potassium mg%	247	290
Sodium mg%	48	42
Calcium mg%	40	44
Magnesium mg %	15	10
Phosphorous mg%	6.3	9.2
Iron μ g%	79	106
Copper μ g%	26	26

Source: Satyavati Krishnankutty (1987)

Sugars

Sugars in the forms of glucose and fructose form an important constituent of the tender nut water. The concentration of sugars in the nut water steadily increases

from about 1.5 per cent to about 5 - 5.5 per cent in the early months of maturation and then slowly falls reaching about 2 per cent at the stage of the full maturity of the nut. In the early stages of maturity sugars are in the form of glucose and fructose (reducing sugars) and sucrose (non-reducing sugar) appears only in later stages which increases with the maturity while the reducing sugars fall. In the fully mature nut approximately 90 per cent of the total sugars is sucrose.

Minerals

Tender coconut water contains most of the minerals such as potassium, sodium, calcium, phosphorous, iron, copper, sulphur and chlorides. Among the minerals more than half is potassium the concentration of which is markedly influenced by potash manuring. Tender coconut water being rich in potassium and other minerals plays a major role to increase the urinary output.

Protein

Coconut water contains small amounts of protein. The percentage of arginine, alanine, cystine and serine in the protein of tender coconut water are higher than those in cow's milk. Since it does not contain any complex protein the danger of producing shock to the patients is minimised.

Amino Acid Composition of Coconut Water (% of total protein)

Alanine	2.41
Arginine	10.75
Aspartic acid	3.60

Cystine	0.97 - 1.17
Glutamic acid	9.76 - 14.5
Histidine	1.95 - 2.05
Leucine	1.95 - 4.18
Lysine	1.95 - 4.57
Proline	1.21 - 4.12
Phenylalanine	1.23
Serine	0.59 - 0.91
Tyrosine	2.83 - 3.00

Source: Pradera et al, 1942

Vitamins

Tender coconut water contains both ascorbic acid and vitamins of B group. The concentration of ascorbic acid ranges from 2.2 to 3.7mg per ml, which gradually diminishes as the kernel surrounding the water begins to harden.

Vitamins of B Group in Coconut Water

Nicotinic acid	0.64 microgram / ml
Pantothenic acid	0.52 ,,
Biotin	0.02 ,,
Riboflavin	< 0.01 ,,
Folic acid	0.003 ,,
Thiamine	Trace ,,
Pyridoxine	Trace ,,

Agenda item No.4 (a) - Proposed draft code of practice for the processing and handling of quick frozen foods

Government of India want to mention that the code of practice for the processing and handling of quick frozen foods was adopted by Codex Alimentarius Commission in its 11th Session, held in March/April, 1976 and published the same in Volume 5 A- 1994 – under document No.CAC/RCP 8 – 1976. It is not clear whether this code will replace the earlier code of practice adopted by CAC or this will be in addition to the same. Secondly, the code of practice for the processing and handling of quick frozen vegetables should be developed separately. It should not be clubbed with code of practices for poultry/meat processing industry. The Committee may also consider the elaboration of sector specific/product specific code of practices for quick frozen foods based on Good Manufacturing Practices (GMPs) as well as application of HACCP which may be used for training of employees of the quick frozen food industry.

Agenda item 4 (b) – Proposed Draft Codex Standard for Processed Fruits & Vegetables:

Government of India wants to indicate that Codex Standards for Jam, Jellies and Marmalades, Canned Tomatoes, Processed Tomato Concentrates and vegetables are already laid down and published in Codex Alimentarius Volume 5 A – 1994. Therefore, the title for these products may be as follows:

Proposed Draft Revised Codex Standards for Jam, Jellies and Marmalades, Canned Tomatoes, Processed Tomato Concentrates and vegetables.

Secondly, since the standards already exist, therefore, the changes wherever is required may only be mentioned. There is no need to repeat all the standards.

Agenda item No. 4 (b) – (1) – Proposed Draft Codex Standards for Canned Citrus Fruits:

The proposed standards are too descriptive and may be used as a trade barrier in International trade. Therefore, **the paragraphs 2.2, 2.3, 2.3.3, 2.4 , 2.4.2, 3.4.5, 3.4.6** relating to colour types, styles and defects and allowances may be deleted, as these will not affect the safety of the product.

Para 3.2 : Packing Media

This whole Para may also be replaced with following, as standards for packing media for all canned fruit products is under consideration at agenda item no. 3(d).

“ Canned citrus fruits may be packed in any one of packing media listed in agenda item no. 3(d).”

Para 7.1.4 - Minimum Drained Weight

The drained weight for canned grape fruit and canned Mandarin oranges may be uniform and shall not be less than 50%.

Agenda item No. 4(b)- (2): Proposed Draft Standard for Ginseng

Government of India is of the view that ginseng is a medicinal plant and its root extract is used for aphrodisiac and general health tonic to improve the vitality. Whether it is appropriate to lay down standards for Ginseng under Codex. CCPF&V may deliberate this issue .

Agenda Item No. 4(b)-(3): Proposed Draft Revised Codex Standards for Jams, Fruit Preserves, Jellies and Marmalades

Government of India is of the view that there is no need to reproduce the whole document. The changes where ever is required, the same may be highlighted in the revised document for clear understanding.

Para 2.1 : Product Definitions

The product definition is too descriptive and gradation of products like jam, extra jam, extra jelly etc. is not desirable and create confusion. Therefore, product definitions adopted by Codex Alimentarius and published under Codex Stan-79-1981 in Volume 5A- 1994 may continue as it is , since these are clear and specific.

Para 2.2: Other Definitions

This Para may be retained as per earlier Codex Stan-79-1981 in Volume 5A- 1994.

Para 3.1.2 Fruit Content

Codex should not specify the recipes of the products and specifying quantity of certain fruit ingredients in finished product is unnecessary and this will hamper new product innovations. This should be left on National Governments to decide. However, labelling provisions can be made, if somebody wants to claim as specific product.

Agenda item No.4 (b) – (4): Proposed draft Codex Standard for Soya Sauce

3.1.2: Other Permitted Ingredients

The following Ingredients May be added in this list:

Spices, Onion, Garlic

Para 3.2: Quality Parameters

Two more Quality Parameters may Be added:

(c). Minimum percentage of acidity as acetic acid (w/w) : 0.6%

(d): Minimum Total Soluble Solids (w/w): 25%

Agenda Item No. 4 (b)- (5): Proposed Draft Revised Codex Standards for Canned Tomatoes

Paragraphs 2.2, 2.3, 2.4 and 3.3.5 relating to Varietal types, Styles, other Styles and Allowances for defects may be deleted for the reasons explained at agenda item no. 1.

Agenda Item No. 4 (b)- (6): Proposed Draft Revised Codex Standards for Processed Tomato Concentrate

Paragraph 3.2.4 relating to defects may be deleted.

Agenda Item No. 4 (b)- (7): Proposed Draft Codex Standards for Certain Canned Vegetables

Paragraph 2.3 : Styles

Sub- paragraphs 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.3.5, 2.3.6, 2.3.7 may be deleted for the reasons explained at agenda item no. 1.

Paragraph 3.4.2 : Grading Uniformity

The whole paragraph including sub- paragraphs 3.4.2.1 to 3.4.3.8 may be deleted for the reasons explained at agenda item no. 1.

Agenda Item No. 4 (b)- (8): Proposed Draft Codex Guidelines for Packing Media for Canned Vegetables

Government of India suggest as follows:

Para 2: For Thermally Processed Vegetables:

- 2.1 Vegetables in Water:** In which water is the sole packing medium.
- 2.2 Vegetables in Brine:** In which water, salt, nutritive sweeteners and acidifying agents are used in appropriate proportion as packing medium.
- 2.3 Vegetables in Sauce:** In which water, salt nutritive sweeteners, acidifying agents, butter or margarine or other edible fats of milk or vegetable origin or butter sauce or margarine sauce or cheese sauce or tomato sauce or any other sauce, as appropriate to the product, is the packing medium. The butter or fat, if used, shall not be less than 3% of the final product and such product may also contain starch (natural or physically or enzymatically modified).
- 2.4 Curried Vegetables and curried legumes / pulses :** In which curry/gravy is the packing medium which may contain cottage cheese, water, salt, nutritive sweeteners, natural fruit essences, essential oils, aromatic herbs or their extract, spices, seasonings, natural vegetable products such as, onion, garlic, ginger, pepper, celery, basil leaves, mint, kernels, dill seeds, tomatoes, tomato juice/puree/paste, stock of vegetable juices, lime/lemon juice, vinegar, soyabean sauce, wheat/corn / legumes, flour, nuts, starch (natural or modified), edible fat of milk or vegetable origin (not less than 1%) in any combination.

For Solid Pack:-

Any Thermally Processed fruit or vegetable in solid pack may be packed without any packing medium.

