
Jamaican Standard

Specification

for

Canned/Packaged bamboo shoots



BUREAU OF STANDARDS JAMAICA

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JS 334:2015

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CERTIFICATION MARKS



Product Certification Marks



Plant Certification Mark



Certification of Agricultural Produce
(CAP) Mark



Jamaica-Made Mark

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

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

Amendments

No.	Date of Issue	Remarks	Entered by and date

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Foreword

This standard was adapted from a document prepared for Sri Lanka and Bangladesh by the International Center for Bamboo and Rattan (ICBR), the Research Institute of Subtropical Forestry(RISF) and the Chinese Academy of Forestry(CAF) on canned/package bamboo shoot products.

Canned/package bamboo shoots is the product prepared from edible bamboo shoots with or without fermentation and processed by heat, in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage.

Canned/package bamboo shoot products are expected to be exported to international markets and also consumed locally. The trade for bamboo shoots in 2012 was 275 million USD. This underscores the importance of this product to the Jamaican economy and hence the relevance of this standard. The general objective of this standard is to standardize these products and promote them in the export market and enable the local consumers to get products of good quality. This Standard will also support future industry that use bamboo shoots as a raw material for example canned bamboo shoots, bamboo beer, bamboo ketchup, etc.

Committee representation

The preparation of this standard for the Standards Council established under the Standards Act 1968 was carried out under the supervision of the Bamboo Products Standardization Technical Committee which at the time consisted of the following members:

Mr E Bryan, Chairman	Bamboo and Indigenous Materials Advisory Council (BIMAC)
Mrs V Gayle-Ramsay, Vice Chairman	BIMAC
Mr K Ballantyne	Khar-Ferr Foods
Mr C Bowen	Enterprise Jamaica/ Jamdun' Food Processing/BIMAC
Mr R Chang	JTL
Mr T Graham	Independent/BIMAC
Ms D Johnson	BIMAC
Mr K Raymond	BIMAC
Mr D Walker	BIMAC
Mr M Rennalls	Independent/BIMAC
Mr G Wallace	Emamn Int. Ltd.
Mr D Allen, Assistant Tech. Secretary	Bureau of Standards (BSJ)
Mr G Rose, Technical Secretary	Bureau of Standards (BSJ)
Ms L Francis	Bureau of Standards (BSJ)
Ms S Tingle	Bureau of Standards (BSJ)
Mrs V Nurse Gayle, Facilitator	Bureau of Standards (BSJ)
Ms D Gordon, Recording Secretary	Bureau of Standards (BSJ)

Acknowledgement

Acknowledgement is made to the Codex Alimentarius Commission and the International Standards Organization (ISO) for permission to reproduce and the valuable assistance derived from their publications.

Related documents

CODEX STAN 241-2003	CODEX Standard for Canned Bamboo Shoots
CODEX STAN 192-1995	CODEX General Standard for food additives
CAC/RCP 1-1969, Rev 4-2003	Recommended International Code of Practice- General Principles of Food Hygiene
CAC/GL 61-2007	Guidelines on the Application of General of Food Hygiene to the Control of <i>Listeria Monocytogenes</i> in Foods
CAC/RCP 23-1979, Rev. 2-1993	Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods
CAC/GL 21-1997	Principles for the Establishment and Application of Microbiological Criteria for Foods
CAC/MRL 1, Rev.1-2001	Maximum Residue Limits (MRLs) for Pesticides established by the
CODEX STAN 1-1985 (Rev. 1-1991	General Standard for the Labeling of Prepackaged Foods Volume 1
CAC/GL 27-1997	Guidelines for the Assessment of the Competence of Testing Laboratories involved in the Import and Export Control of Food (Codex Alimentarius Volume 13)
JS CRS 5	Jamaican Standard Specification for the Labelling of Prepackaged Foods

JS 1 Part 1	The Labelling of Commodities: Part 1 General principles
JS 1 Part 20	The Labelling of Commodities: Part 20 Labelling of prepackaged goods.
JS 317	Jamaican Standard for The production of processed food utilizing the HACCP principles (general)

Proposed Draft Standard for Canned / Packaged Bamboo Shoots (Technical Manual on Asian Tropical Bamboo Shoots Production Processing and Marketing – by Prof Jiang Zehui

Jamaican Standard Specification for Canned/Packaged Bamboo Shoots

1 Scope

This specification prescribes the requirements and methods of sampling and testing for canned/packaged bamboo shoots for cooking or direct consumption, catering purposes, and for value added products.

2 Definitions

For the purpose of this standard, the following definitions shall apply:

2.1 bamboo shoots. Bamboo shoots are the new growth fresh shoots harvested from the bamboo plant.

2.2 canned/packaged water-boiled bamboo shoots. Prepared from edible bamboo shoots in packing media with or without fermentation and processed by heat, in an appropriate manner, before or after being hermetically sealed in an appropriate container, so as to prevent spoilage and have longer shelf-life for consumption. The pH value of the product shall be as follows:

- (a) Non-fermented, non-acidified bamboo shoots product- $\text{pH} \geq 4.8$.
- (b) Natural fermented bamboo shoots product- $\text{pH} \leq 4.6$;

2.3 canned/packaged seasoned bamboo shoots. Prepared from edible fresh bamboo shoots or canned/packaged water-boiled bamboo shoots with other edible vegetable and food additives in packing media processed by heat, in an appropriate manner, before or after being hermetically sealed in an appropriate container, so as to prevent spoilage and longer shelf time for consumption

2.4 species. Any edible bamboo shoots may be used.

3 Types

3.1 Whole- Complete bamboo shoots body with outer surfaces removed and non-edible part cut.

3.2 Half- Whole bamboo shoots cut longitudinally into halves.

3.3 Slice- Bamboo shoots cut into uniform slices by specific machine or special tools.

3.4 Strip- Bamboo shoots cut into fine strips with regular size by specific machine or special tools.

3.5 Dice- Bamboo shoots cut into cubes of regular size by specific machine and special tools.

3.6 Other Styles

Any other presentation of the product should be permitted provided that the product:

- (a) Is sufficiently distinctive from other forms of presentation laid down in the Standard;
- (b) Meets all relevant requirements of the Standard, including requirements relating to limitations on defects, drained weight, and any other requirements which are applicable to that style which most closely resembles the style or styles intended to be provided for under this provision; and
- (c) Is adequately described on the label to avoid confusing or misleading the consumer.

4 Ingredients

All ingredients used shall comply with the CODEX General Standard for Food Additives (GSFA).

4.1 Basic Ingredients

Bamboo shoots as defined in Section 3 and 4 and liquid packing medium appropriate to the product.

4.2 Optional Ingredients

In addition to the ingredients given in 5.1, one or more of the following in Table 1 may be used for the canned/package water-boiled bamboo shoots to regulate acidity to prevent spoilage.

Table 1 Acidity limits

Acidity Regulator	Maximum level
L-ascorbic acid	400 mg/kg in the final product
Citric acid	In proportions specified by the CODEX General Standard for Food Additives (GSFA)
Lactic acid(not in products having undergone lactic acid fermentation)	
Malic acid	
Acetic acid	
Tartaric acid	
	1,300 mg/kg

In addition to the ingredients given in 5.1 and 5.2, one or more of the following may be used for the canned/package seasoning bamboo shoots:

- (a) Carbohydrates, including sugars
- (b) Edible fats and oils
- (c) Chili, peppers, herbs, spices and other flavoring
- (d) Salt
- (e) Other edible vegetable

5 Requirements

5.1 Hygiene

It is recommended that the product covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice-General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 4-2003), Recommended International Code of Hygienic Practice for Low-Acid and Acidified Low-Acid Canned Foods (CAC/RCP 23-1979, Rev. 2-1993), other relevant Codex texts such as codes of hygienic practice and codes of practice and the JS 317 Jamaican Standard for The production of processed food utilizing the HACCP principles (general)

5.2 Quality

Canned/package water-boiled bamboo shoots shall have normal colour, flavor and odor and shall possess a texture characteristic of the product.

Canned/package seasoning bamboo shoots shall have the characteristic aroma and flavor of the bamboo shoots from which it has been prepared taking into consideration the addition of ingredients.



5.3 Heavy metals

The product covered by the provisions of this Standard shall comply with those maximum levels in Table 2

Table 2 – Heavy metal limits

Heavy metal	Maximum level
Arsenic(As)	0.2 mg/kg
Lead(Pb)	0.2 mg/kg
Copper (Cu)	5 mg/kg
Zinc(Zn)	5 mg/kg
Iron(Fe)	15 mg/kg
Tin (Sn)	150 mg/kg in canned products 40 mg/kg in packaged products
Sum of copper , zinc and iron	20 mg/kg
Sulphur dioxide	10 mg/kg
Mineral impurities insoluble in 10% hydrochloric acid shall not exceed	100 mg/kg

5.4 Pesticide residues

The products covered by this Standard shall comply with Maximum Residue Limits (MRLs) for Pesticides established by the CAC/MRL 1, Rev.1-2001.

5.5 Microbiological limits

5.5.1 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 Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969, Rev 4-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

5.5.2 The product should comply with any microbiological criteria established in accordance with Guidelines on the Application of General of Food Hygiene to the Control of *Listeria Monocytogenes* In Foods (CAC/GL 61-2007).

5.5.3 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).

5.5.4 When tested by appropriate methods of sampling and examination the product:

- (a) Shall be free from microorganisms which are capable of development under normal conditions of storage, which may represent a hazard to health;
- (b) Shall not contain any substances originating from microorganisms in amounts which may represent a hazard to health.

6 Weights and Measures

6.1 Fill of container

6.1.1 Minimum Fill

The container should be well filled with bamboo shoots and the product (including packing medium) with not less than 90% of the water capacity of the container. The water capacity of the container is referred to the maximum volume of distilled water at 20°C which the sealed container will hold when completely filled.

6.1.2 Minimum Drained Weight

The drained weight of the product should be not less than 50% of the net weight, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.

7 Marking and/or Labeling

In addition to the requirements of the JS 1 part 1 Jamaican Standard Specification for The labelling of Commodities: Part 1 General principles, JS 1 Part 20 Jamaican Standard Specification for The Labelling of Commodities: Part 20 Labelling of prepackaged goods and the JS CRS 5 Jamaican Standard Specification for the Labelling of Prepackaged Foods, the following specific provisions apply:

7.1 Containers Destined for the Final Consumer

7.1.1 Name of the products

The name of the product shall be “bamboo shoots”, “water boiled bamboo shoots” or “fermented bamboo shoots”. The style, as appropriate, shall be declared as part of the name.

7.1.2 List of Ingredients

A complete list of ingredients shall be declared on the label in descending order of proportion based on food regulations issued by local government.

7.1.3 Additional Requirements

The following additional requirements apply:

- (a) No bamboo shoots or bamboo shoots products may be represented pictorially on the label except those present in the product;
- (b) Brand name or Trade name, if any;
- (c) Name and address of manufacturer and packer or distributor;
- (d) Net content in milliliters or in kg or grams;
- (e) Date of manufacture;
- (f) Date of expiry;
- (g) Instructions for storage and use, if any.

7.2 Labeling of non-retail containers

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the

manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

8 Methods of Analysis and Sampling

See Codex Alimentarius Volume 13.

Standards Council

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

The Council is appointed by the Minister in the manner provided for in the Standards Act, 1968. Using its powers in the Standards Act, the Council appoints committees for specified purposes.

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

Preparation of standards documents

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

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

Overseas Standards documents

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

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

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

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