

codex alimentarius commission



FOOD AND AGRICULTURE
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Agenda Item 5a

CX/PFV 10/25/5-Add.1
September 2010

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

25th Session
Bali, Indonesia,
25 – 29 October 2010

PROPOSED DRAFT CODEX STANDARD FOR CANNED MUSHROOMS (Revision of CODEX STAN 55-1981) COMMENTS FROM: Brazil, Colombia, Cuba, Kenya, Malaysia, Mexico, Thailand and the United States of America

BRAZIL

In regard to the aforementioned draft annex, Brazil would like to congratulate France for all the effort conducting the WG, and to share some specific comments.

Section and sentence/paragraph	Type of change	Rationale	Proposed changes
Title	Clarification	As mushroom is a general wording applied to other fungus than white, Paris or button mushrooms, it may be appropriate to be more specific for better understanding and application of the Standard.	PROPOSED DRAFT ANNEX ON WHITE OR "PARIS" MUSHROOMS
1.1 Product definition	Clarification	For consistency with adopted wording used on the other annexes on canned vegetables and not to mislead consumers whilst allowing the use of mushrooms " <u>conforming with the characteristics of the genus <i>Agaricus</i></u> " (as in text), current revision should clearly specify the scope of the Standard to white, "Paris" or button mushrooms.	The name " <u>White or "Paris" Mushrooms</u> " stands for the product prepared from using <u>clean, sound</u> and fresh mushrooms conforming with the characteristics of any suitable cultivated varieties (cultivars) of the genus <i>Agaricus</i> (<i>Psalliota</i>), including <i>A. bisporus</i> , <u>that fits for human consumption</u> which mushrooms shall be in good condition and after cleaning and trimming shall be sound.
1.3.1 Buttons	Preferred provision/clarification	Brazil supports keeping provision as it is in current standard, striking out the square brackets of 5mm limit for the length of stems. Brazil understands that provisions above that limit should be accompanied by a statement/relationship/proportion between the stem length and the veil.	Whole mushrooms, with attached stems not exceeding ±5 mm [10/15 mm] in length, measured from the bottom of the veil.

Section and sentence/paragraph	Type of change	Rationale	Proposed changes
1.3.4 Sliced or Sliced Whole	Removal	Consider adopting only maximum limit as it may brings more flexibility and adequacy to the proposed style.	Mushrooms cut into slices [2] [3] mm up to [8] [10] mm thick, of which not less than 50% are cut with regular thickness, parallel to the axis of the mushroom.
2.2.3 Defects and Allowances	Clarification	For consistency with adopted style used on the other annexes on canned vegetables a table may be considered to insert the provisions.	<u>Example below</u>
2.2.3 Defects and Allowances	Insertion	For consistency with adopted text in tables used on the other annexes a reference related to the aggregate defects/total defects should be inserted.	<u>TOTAL percentage of defects (a), (c) and (d) for white or “Paris” Mushrooms shall not exceed [20%].</u>
2.2.3 Defects and Allowances (b)	Change in provision value	For consistency with all other annexes, Brazil would like to drive the attention of the Committee that the proposed value for extraneous matter is too high for a processed product following GMP.	b) Traces of casing material: mushroom or piece of mushroom on which remains a part of root and/or soil and/or grit, or any other extraneous matter, whether of mineral or organic origin, of more than 2 mm in diameter attached or not to the mushroom 1% 4% by weight.

COLOMBIA

Below are itemized the changes made to the document:

ITEMS	POSITION PROPOSAL	OBSERVATIONS OR COMMENTS
<p>1.3 STYLES</p> <p>1.3.1 Buttons – whole mushrooms, with attached stems not exceeding [5 mm] [40/15 mm] in length, measured from bottom of veil.</p> <p>1.3.4 Slice or Slice whole – mushrooms cut into slices of [2] [3] mm to [8] [40] mm thick, of which not less than 50 percent are cut with regular thickness, parallel to the axis of the mushroom.</p> <p>1.3.7 Stems and pieces (cut) – Pieces of caps and stem of irregular sizes and shapes. The percentage of stems do not exceed 80% [50%].</p>	<p>In accordance with the forms of presentation, we propose the following ranges:</p> <p>1.3.1 Buttons – whole mushrooms, with attached stems not exceeding 15 mm in length, measured from bottom of veil.</p> <p>1.3.4 Slice or Slice whole – mushrooms cut into slices of 2 mm to 8 mm thick, of which no less than 50 percent are cut with regular thickness, parallel to the axis of the mushroom.</p> <p>1.3.7 Stems and pieces (cut) – Pieces of caps and stem pieces of irregular sizes and shapes. The percentage of stems do not exceed 50%.</p>	<p>The preceding supported by national industry experience (laboratory results and reports).</p>

ITEMS	POSITION PROPOSAL	OBSERVATIONS OR COMMENTS
<p>2.2 QUALITY CRITERIA</p> <p>2.2.1 Color</p> <p>The packing liquid medium should be clear or slightly turbid, and a color between light yellow [to light brown].</p> <p>or</p> <p>[The packing liquid medium, in conformity to section 3.1.3 of Codex Standard for Certain Canned Vegetables (CODEX STAN 297-2009), should be either clear for white- or cream-colored mushrooms, or light brown for brown-colored mushroom varieties].</p>	<p>In accordance with the proposal for color, we suggest supporting the following:</p> <p><u>The liquid packing medium, conformity to section 3.1.3 of Codex Standard for Certain Canned Vegetables (CODEX STAN 297-2009), should be either clear for white- or cream-colored mushrooms, or light brown for brown-colored mushroom varieties.</u></p>	<p>The preceding supported by national industry experience.</p>
<p>2.2.3 Defects and Allowances (new or modified provisions are submitted between brackets)</p> <p>[a) Defects in shape - spotted mushrooms: a mushroom is spotted when it presents a dark brown to brown spot of a diameter upper to 3 mm or when it is very speckled (more of 10 blackheads). [5%] [40%] in weight;</p> <p>b) Traces of casing material: mushroom or piece of mushroom on which remains a part of root and/or soil and/or grit, or any other extraneous matter, whether of mineral or organic origin, of more than 2 mm in diameter attached or not to the mushroom. [4 %] by weight;</p> <p>c) Open mushroom for “buttons” and “whole mushrooms”: a mushroom is opened if small strips are visible on at least half of the circumference and if the distance between the cap and the stem is upper to 4 mm: 10% by count</p> <p>d) Broken mushroom or pieces of mushroom or mushrooms with detached caps or stems - for “buttons”, “whole mushrooms” and “grilling mushrooms”: mushroom which is missing at least the quarter of the cap, caps and only stems: 5%.]</p>	<p>In accordance with the preceding proposal we agree with the inclusion of items a) to d), as enunciated below:</p> <p><u>a) defects in shape: spotted mushrooms: a mushroom is spotted when it presents a dark brown- to brown spot of a diameter upper to 3 mm, or when is very speckled (more than 10 black spots). 5% in weight;</u></p> <p><u>b) Traces of casing material: mushroom or piece of mushroom on which remains a part of root and/or soil and/or grit, or any other extraneous matter, whether of mineral or organic origin, of more than 2 mm in diameter attached or not to the mushroom. 4 % by weight;</u></p> <p><u>c) Open mushroom for “buttons” and “whole mushrooms”: a mushroom is opened if small strips are visible on at least half of the circumference and if the distance between the cap and the stem is upper to 4 mm: 10% by count</u></p> <p><u>d) Broken mushroom or pieces of mushroom or mushrooms with detached caps or stems - for “buttons”, “whole mushrooms” and “grilling mushrooms”: mushroom which is missing at least the quarter of the cap, caps and only stems: 5%.</u></p>	<p>We consider important its inclusion, because the prior standard did not provide for these parameters, and these defects may occur.</p>

ITEMS	POSITION PROPOSAL	OBSERVATIONS OR COMMENTS
<p>4.1 MINIMUM DRAINED WEIGHT The drained weight of the product should not be less than [53%] [50%] of the weight of distilled water at 20°C which the sealed container will hold when completely filled.</p>	<p>In accordance with the previous proposal, we consider to establish the following: The drained weight of the product should not be less than 50% of the weight of distilled water at 20°C which the sealed container will hold when completely filled.</p>	<p>The preceding supported by national industry experience.</p>

CUBA

(i) General observations

6. METHODS OF ANALYSIS AND SAMPLING

DETERMINATION OF WASHED DRAINED WEIGHT (CAC/RM 44-1972)

(For canned mushrooms in sauce packs)

On one hand, it is recommended to the Committee for this test method to be reviewed by some recognized international organization, or create a work group within the Committee itself to be in charge of this review work, because despite being a specific method for this type of product, it has some technical deficiencies, such as: it does not establish the type of scale to be used nor its accuracy, gives approximated results, the method is repetitive, etc.

On the other hand, there are other aspects of the method, like Section 3.1 that establish a tin container to be used when there are other container materials that are used to preserve canned mushrooms. This constitutes an obstacle in the method.

(ii) Specific observations

SECTION 1: DESCRIPTION

1.3.1 Is proposed a range of: up to 15 mm.

Basis: With this tolerance is covered the technical possibility rose by a country that the stem may continue its growth during the storage period once cut, and before its industrial processing.

1.3.4 Is proposed to keep both ranges with the following wording: mushrooms cut in 2/4 mm thick slices (for smaller mushrooms), or 8/10 mm thick (for larger mushrooms), of which no less than 50 percent be cut parallel to the axis of the mushroom.

Basis: Consider possible sizes of mushrooms: larger or smaller. If both sizes are not considered, mushrooms in very good condition would be rejected for canned-type commercialization. Or would have to be established a classification of mushroom types in this Attachment according to their size, which may be subject to analysis at the Committee's meeting in order to not discriminate or exclude smaller mushrooms.

1.3.7 Is proposed: cap and stem pieces of irregular sizes and shapes. Stem percentage should not be greater than 50%.

Basis: To guarantee in the final product a balance between the amount of stems and pieces, this would be something favorable to the receiving consumer.

SECTION 2: ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.2.1 The following writing is proposed: The liquid packing medium should be clear or slightly turbid, and a color between cream and light yellow for white- or cream-colored mushroom varieties, and light brown for brown-colored mushroom varieties.

Basis: It is obvious that white- or cream-colored mushrooms may be appraised in the sensorial assessment as cream or light yellow, therefore, both appraisals should be considered. Given that this Annex is more specific, is proposed to include both colors. It could have been also included in CODEX STAN 297-2009 Standard, or may be included in the CODEX STAN 297-2009 Standard text, but the latter would be to propose a revision of a recently published Standard.

2.2.3 a) Is proposed: 5% in weight as maximum.

Basis: A high percentage of this defect would aesthetically affect the finished product.

b) Is proposed: 4% in weight as maximum.

Basis: A high percentage of this defect would affect the safety of the product, its intrinsic quality, and furthermore, also aesthetically affect the finished product.

c) The proposal is accepted with the following writing: **10% in weight as maximum.**

Basis: A high percentage of this defect would aesthetically affect the finished product.

d) The proposal is accepted with the following writing: **5% in weight as maximum.**

Basis: A high percentage of this defect would aesthetically affect the finished product.

SECTION 4: WEIGHTS AND MEASURES

4.1 Is proposed the following writing: **The drained weight of the product should not be less than 53%**, of the weight of distilled water at 20 °C which the sealed container will hold when completely filled.

Basis: Guarantee an adequate amount to the consumer.

KENYA

Agenda item 5b: PROPOSED DRAFT CODEX STANDARD FOR CANNED MUSHROOMS (Revision of CODEX STAN 55-1981) (N01-2009)

1.3 STYLES

Comment

We would like to submit the comments as indicated below and remove the square brackets where we believe it is not required:

1.3.1 **Buttons** - Whole mushrooms, with attached stems not exceeding ~~{5 mm}~~ **[10-15 mm in length]**, measured from the bottom of the veil.

1.3.4 **Sliced or Sliced Whole** - Mushrooms cut into slices ~~{2} 3 mm to {8} 10 mm thick~~, of which not less than 50% are cut with regular thickness, parallel to the axis of the mushroom.

1.3.7. **Stems and Pieces (Cut)** - Pieces of caps and stems of irregular sizes and shapes. The percentage of stems do not exceed ~~80%~~ **50%**.

2.2.1 Colour

Comment

We propose to use the proposed text reflecting that the mushrooms should have normal color, like their variety and the respective ingredients used and for this case we prefer the second option.

~~The liquid packing medium in shall be either clear or slightly turbid and light yellow [to light brown in colour].~~

The liquid packing medium, in conformity with Section 3.1.3. of the Codex Standard for Certain Canned Vegetables (CODEX STAN 297-2009), should be either clear for white or creams mushrooms or light brown for brown varieties.

Comment

2.2.2 Texture: should be limited to Regular or Natural Pack and should be defined in the proposed definition

2.2.3 **Defects and Allowances** (new or modified provisions into brackets)

General /specific Comment

Defects and Allowances section should be in table format and have a permissible deviation associated with every defect, this refers to a) to d) indicated below. Make note of the comments in every clause.

Comment

- a) Defects in shape - spotted mushrooms: a mushroom is spotted when it presents a dark brown to brown spot of a diameter upper to 3 mm or when it is very speckled (~~more of 10 blackheads~~). **5% [10%]** by weight;

Comment

- b) Traces of casing material: mushroom or piece of mushroom on which remains a part of root and/or soil and/or grit, or any other extraneous matter, whether of mineral or organic origin, of more than 2 mm in diameter attached or not to the mushroom. **4 % by weight.**

c) **Comment**

d) Broken mushroom or pieces of mushroom or mushrooms with detached caps or stems - for “buttons”, “whole mushrooms” and “grilling mushrooms”: mushroom which is missing at least the quarter of the cap, caps and only stems: 5%.

4. **WEIGHTS AND MEASURES****Comment**4.1 **MINIMUM DRAINED WEIGHT**

The drained weight of the product shall be not less than [53%] 50% of the weight of distilled water at 20 °C which the sealed container will hold when completely filled.

JUSTIFICATION

This is because there are no absolute figures in drain weight.

MALAYSIA1.3 **STYLES**

1.3.4 Sliced or Sliced Whole - Mushrooms cut into slices [2] [3] mm to [8] [10] mm thick, of which not less than 50% are cut with regular thickness, parallel to the axis of the mushroom.

Comments:

Malaysia is of the view that slices of mushrooms be between 2 mm to 10 mm for consumer choice.

1.3.7 Stem and Pieces (Cut) – Pieces of caps and stems of irregular sizes and shapes. The percentage of stems do not exceed ~~80%~~ [50%]

Comments:

Malaysia is of the view that stems and pieces of cuts of mushrooms do not exceed 50% to minimise loss of contents to be served for consumers.

2. **ESSENTIAL COMPOSITION AND QUALITY FACTORS**2.2 **QUALITY CRITERIA**2.2.1 **Colour**

The liquid packing medium ~~is~~ shall be either clear or slightly turbid and light yellow [to light brown in colour].

Comments:

Malaysia notes the need for an editorial amendment.

2.2.3 **Defects and Allowances** (new or modified provisions into brackets)

[a] Defects in shape – spotted mushrooms: a mushroom is spotted when it presents a dark brown to brown spot of a diameter upper to 3 mm or when it is very speckled (more than 10 blackheads). Not exceeding [5%] of drained weight for sliced mushrooms and [10%] of drained ~~by~~ weight for whole mushrooms.

Comments:

Malaysia is of the view that processed products should have defects and allowances for quality and aesthetic value. Allowance of defect is dependent on the styles of the product.

b) ~~Traces of casing material~~ **Extraneous matter** : mushroom or piece of mushroom on which remains a part of root and/or soil and/or grit, or any other extraneous matter, whether of mineral or organic origin, of more than 2 mm in diameter attached or not to the mushroom. [4 %] by weight.

Comments:

Malaysia is of the view to refer to extraneous matter and replace the term “Traces of casing material”. Malaysia agrees to an assigned value for this defect which should be achievable.

3. FOOD ADDITIVES

3.1 ANTIOXIDANTS, PRESERVATIVES OR SEQUESTRANTS

Malaysia agrees to the maximum level of 200 mg/kg for Calcium disodium ethylenediaminetetraacetate (INS 385). However, the committee needs to take note that this level is retained and a note be proposed in the Codex GSFA for food category 0.4.2.2.4 Canned or bottled (pasteurized) or retort pouch vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), and seaweeds.

4. WEIGHTS AND MEASURES

4.1 MINIMUM DRAINED WEIGHT

The drained weight of the product shall be not less than ~~{53%}~~ {50%} of the weight of distilled water at 20°C which the sealed container will hold when completely filled.

Comments:

Malaysia is of the view value of minimum drained weight be 50% as this is achievable.

MEXICO

3. FOOD ADDITIVES

We are in support of this proposal as these additives are being revised and updated.

3.1 ANTIOXIDANTS, PRESERVATIVES OR SEQUESTRANTS

INS No.	Name of the Food Additive	Maximum Level
385	Calcium disodium ethylenediaminetetraacetate	200 mg/kg

THAILAND

1. SCOPE

We would like to propose that the scope should be revised to cover other varieties of mushroom that are currently traded such as Shitake mushrooms (*Lentinula edodes* (Berk.) Pegler), Straw Mushroom (*Volvariella volvacea* (Bull.)Sing), Sarjor-caju Mushroom (*Pleurotus sajor-caju* (Fr.) Sing), Abalone Mushroom (*Pleurotus ostreatus* (FR.) Guel) and Oyster Mushroom (*Pleurotus ostreatus* (Jacq.) P. Kumm).

1.3 STYLES

According to the consumers preference, the style of canned mushroom should be :

1.3.1 Buttons -Whole mushrooms, with attached stems not exceeding ~~{5 mm}~~ [10/15 mm] in length, measured from the bottom of the veil.

1.3.4 Sliced or Sliced Whole - Mushrooms cut into slices [2] [3] mm to [8] [10] mm thick, of which not less than 50% are cut with regular thickness, parallel to the axis of the mushroom .

1.3.7 Stems and Pieces (cut) - Pieces of caps and stems of irregular sizes and shapes. The percentage of stems do not exceed ~~80%~~ [50%].

Moreover, it is proposed that the characteristics, style and defect allowance should be also revised to cover the other varieties of mushroom that we propose in the scope.

4.1 MINIMUM DRAINED WEIGHT

Taking into consideration the current practices in trade, we support setting minimum drained weight at “not less than 50%”.

UNITED STATES

The United States of America welcomes the opportunity to participate in the revision of the Codex Standard for Canned Mushrooms for inclusion as an Annex to the Codex Standard for Certain Canned Vegetables. In the development of international standards that reflect global industry and regulatory practices, we note that there has not been any consumer, industry or regulatory agency complaints about the existing standard. Therefore, key parts of the existing standard such as “styles” and “Essential Composition” should be retained.

Specific Comments

1. DESCRIPTION

1.1 PRODUCT DEFINITION

The draft text broadens the Product Definition allowing “any suitable cultivated mushroom variety.” Therefore, the standard needs to make allowances for a range in the “Essential Composition and Quality Factors” section without being overly prescriptive.

1.3 STYLES

The text of this section in the existing Codex standard should be retained in its entirety, so as to avoid disruptions in trade and confusion among consumers, producers and regulatory bodies. All proposals for new styles should be placed within the “Other Styles” designation, as found in the current CODEX-STAN 55-1981, with the Style nomenclature indicated in Section 5- Labeling. The possibility of adding new style nomenclature based on new characteristics also exists. In doing so, the standard can reflect both new and historical styles, a wider range of global consumer taste and preferences, as well as industry and regulatory practices

In Section **1.3.7- Stems and Pieces (Cut)** - the draft text proposes a limit on the amount of stems. The U.S. supports retention of the existing text without any such limit on the stem composition

In Section **1.3.1 titled “Buttons,”** the U.S. supports retaining existing text found in Codex Stan 55-1981 as follows: Buttons – Whole Mushrooms, with attached stems not exceeding 5 mm in length, measured from the bottom of the veil.

In Section **1.3.4 titled “Sliced or Sliced Whole,”** the U.S. supports retaining existing text found in Codex Stan 55-1081: “Sliced or Sliced Whole – Buttons cut into slices 2 mm to 8 mm thick, of which not less than 50% are cut parallel to the axis of the mushroom.”

In Section **1.3.7- Stems and Pieces (Cut)** , the draft text proposes a limit on the amount of stems. The U.S. supports retention of the existing text without any such limit on the stem composition

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

The sentence “Juice exuding from the mushrooms.” has been moved to section **2.1.1 (Other Permitted Ingredients)**. However, it is unclear why juice, a component of the mushroom, should be considered under “other permitted ingredients.”

2.2.1 Color

The U.S is concerned that if mushrooms are over-processed or double-processed by retort, the packing media may become darker and more turbid than the requirement. Therefore, GMP requirements may ensure the quality of the products even without such a requirement. For this reason, the U.S. recommends inserting the following statement from Section 2.2.1.1. of the Annex of CODEX STAN 55-1981:

The mushroom portion of the product shall have normal color characteristics of the variety. Canned mushrooms of special types and containing special permitted ingredients shall be considered of characteristic color when there is no abnormal discoloration for the respective ingredients used.

2.2.2 Texture

The Mushroom shall be firm and substantially intact.

In CODEX STAN 55-1981, the above requirement applies only to “Regular or Natural Pack” mushrooms. This should remain and not extend to the other types of packing in which packing media affect the integrity/wholeness of the style.

2.2.3 Defects and Allowances

This entire section is overly prescriptive and appears to be an extended version of Sections 3.3 and 3.4 of the Annex to CODEX STAN 55-1981. These requirements are tightened without any justification and imposes new and severe restrictions to the canned mushroom sector.

3. FOOD ADDITIVES

The U.S. reminds the CCPFV of the recommendation of the 58th session of the Executive Committee of Codex Alimentarius that was endorsed by the 28th session of the Commission, which says *“the GSFA should be the single authoritative reference point for food additives and this should be made clear in all commodity standards” (Alinorm 05/28/3A paragraph 56 [15])*. Therefore, the wording for this section in this draft revised standard as stated in the Procedural Manual¹ should take the following form:

¹ Codex Alimentarius Commission Procedural Manual, nineteenth edition, page 46

“[Food Additive functional class including, but not limited to Acidity Regulators, Antioxidants, Flavor enhancers, And Preservatives can] be used in accordance with Tables 1 and 2 of the Codex General Standard of Food Additives in food category 04.2.2.4. [Processed fruits and vegetables(including mushrooms and fungi roots, tubers, pulses and legumes and aloe vera) and seaweed in vinegar, oil, brine, or soybean sauce,] or listed in Table 3 of the General Standard for Food Additives are acceptable for use in foods conforming to this standard.]”

Annex II, Section 3 of CX/PFV 10/25/5 on Canned Mushrooms makes the following general assumption expressed as Comments and Considerations on:

Vegetable gums, pectins, alginates and modified starches are generally used as stabilizers, thickeners or emulsifiers. These additives are not necessary for canned mushrooms in packing media as defined by the Standard for Certain Canned Vegetables. In addition, starches, alginates... could be used for the purpose of frauds.”

The CCPFV group should note that additives referred to in Codex Stan 55-1981 have been used in the processing of canned mushrooms in the U.S. for many years. Furthermore, the United States specifically allows rice starch as a processing aid in the initial processing of raw mushrooms, prior to blanching and canning.

Hence, as the product definition is expanded and new styles are incorporated to meet consumer performance expectations, producers should be allowed to use any appropriate safe processing aid. Issues of fraudulent processing practices are better dealt within national legislations and not by Codex. For transparency reasons, Codex member countries with restrictive starch or additive requirement for fraud prevention purposes might consider informing the CCPFV so as to facilitate trade.

4.1 Minimum Drained Weight.

The U.S supports retention of the drained weight at 53.0 percent. This is a well established industry practice; additionally in some countries, this requirement is 56.0 percent. Therefore lowering this requirement may not serve consumer or trade interest.

5. LABELLING

This section of the standard should clearly reflect the type of mushroom preparation in the product definition and subsequently declared on the product label. The label should indicate that it is either packed from fresh mushrooms or packed from brined mushrooms.