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CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - Fax: (+39) 06 5705 4593 - E-mail: codex@fao.org - www.codexalimentarius.org

Agenda Item 7 **CX/PFV 16/28/7-Add.1**

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

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EDITORIAL AMENDMENTS TO CODEX STANDARDS FOR PROCESSED FRUITS AND VEGETABLES

(Prepared by the Codex Secretariat)

INTRODUCTION

1. Due to time constraints, the 27th Session of the Committee on Processed Fruits and Vegetables (September 2014) could not consider thoroughly the paper of the Codex Secretariat on status of work on the review of Codex standards for processed fruits and vegetables. The Committee therefore agreed to consider prioritization of work on the review of remaining individual standards for processed fruits and vegetables including ways to deal with the standardization of dry and dried produce at its next session.

2. In order to assist the Committee in its deliberation on future work on the review of remaining standards for processed fruits and vegetables, the Committee agreed that the Codex Secretariat will proceed with the editorial amendment of the 18 standards awaiting review in particular as to the horizontal provisions applying across commodity standards, e.g. hygiene, contaminants, food additives, etc. The section on food additives will be updated in line with the template laid down in the Procedural Manual, including a proposal for a general reference to the General Standard for Food Additives (CODEX STAN 192-1995).

3. Examples of possible merging of existing standards are also presented to facilitate discussion on work prioritisation as recommended by the Committee. Such examples can be found in working document CX/PFV 16/28/7-Add.2.

WORK ON THE REVIEW

SCOPE

4. In those standards (especially those related to canned fruits and vegetables) where the scope is missing, it is proposed to insert a section on scope for consistency with the format of Codex commodity standards including standards for processed fruits and vegetables. The language has been taken from the Standard for Certain Canned Fruits which is the language that usually applied to Codex standards for canned fruits and vegetables.

STYLES

5. Codex standards for processed fruits and vegetables, in particular canned fruits and vegetables, usually lay down provisions for styles.

6. The General Standard the Labelling of Pre-packaged Foods (CODEX STAN 1-1985) stipulates mandatory declaration of styles under the name of the product.

7. Some of the standards under review do not provide provisions for “styles” and/or “other styles” and therefore general language was provided for consideration by the Committee which is in line with the text used for provisions for “other styles”. When provisions were styles or other styles were included, corresponding labelling provisions has also been included. This is consistent with the format of Codex standards for canned fruits and vegetables (e.g. Standard for Certain Canned Fruits (CODEX STAN 319-2015), Canned Vegetables (CODEX STAN 297-2009)).

COMPOSITION

8. In those standards where provisions for composition are missing, the Committee may consider the pertinence to include such provisions which usually refer to “basic” and “other” (additional or optional) ingredients to keep the format for Codex standards for processed fruits and vegetables.

PACKING MEDIA

9. The review simplified provisions for packing media by referring to the Guidelines for Packing Media for Canned Fruits (CAC/GL 51-2003) and made adjustments to the labelling section accordingly. It is noted that the Guidelines were developed by CCPFV to simplify individual provisions for packing media in canned fruits. The Guidelines encompass packing media across canned fruits and thus cover the different types of packing media and concentration of syrups described in individual standards for canned fruits. They supersede provisions in Appendix to Part I of Volume 5A (former compilation of Codex standards for processed fruits and vegetables). Note that the publication of the Codex Alimentarius volumes has been discontinued and therefore they are no longer available. The approach is consistency with packing medium provisions in Codex standards for canned fruits developed by CCPFV.

FOOD ADDITIVES

10. The review updated food additive provisions by putting them in line with the template laid down in the Procedural Manual and includes a proposal for a reference to the GSFA where such provisions exist. In those standards where provisions for food additives were clearly stated “none permitted” the section was left unchanged.

11. Two options are provided according to the Procedural Manual for those standards containing provisions for food additives i.e. (a) direct reference to the GSFA or (b) a limited list of food additives relevant to the products covered by the Standard or (c) a combination of both options. Option (c) can apply depending on whether some functional classes can refer to the GSFA or have an exhaustive list (see Standard for Canned Vegetables as a combined example of both approaches).

CONTAMINANTS AND HYGIENE

12. The review updated or include sections on contaminants and hygiene in line with the text laid down in the Procedural Manual.

13. The Committee may wish to look into other codes of hygienic practices and codes of practice relevant to the products covered by the Standard developed by the Committee, the Committee on Food Hygiene, or other relevant Codex committee / task force.

WEIGHTS AND MEASURES

14. The section on minimum drained weight was amended to include a clarification for non-metallic rigid containers for consistency with Codex standards for processed fruits and vegetables.

LABELLING

15. The review updated labelling provisions by including standardized provisions for the labelling of non-retail containers which apply to commodity standards in general. Specific provisions for quick frozen products were included in the standards for quick frozen fruits.

METHODS OF ANALYSIS AND SAMPLING

16. The review updated the section on methods of analysis and sampling by replacing the reference to Volume 13 of the Codex Alimentarius with a reference to the Recommended Methods of Analysis and Sampling (CODEX STAN 234-1999). The text was adopted by the 39th Session of the Commission as an amended to the Format for Codex Commodity Standards in the Procedural Manual.[1]

17. However, it remains within the remit of commodity committees such as CCPFV to check the list of methods of analysis in CODEX STAN 234-1999 to determine whether such methods adequately address compliance with the provisions in the standards for processed fruits and vegetables and/or to identify [other] suitable methods of analysis developed by recognized international organizations for endorsement by CCMAS and inclusion in CODEX STAN 234-1999.

18. It is noted that the Joint FAO/WHO Codex Alimentarius Sampling Plans for Pre-packaged Foods (1969) (AQL-6.5) (CAC/RM 42-1969) was revoked and superseded by the General Guidelines on Sampling (CAC/GL 50-2004). These Guidelines do not provide sampling plans but guidance for Codex committees to develop sampling plans according to their specific needs.

[1] REP16/MAS, para 73 and Appendix III.

19. Consequently, sampling plans that commonly applied for lot acceptance with an AQL of 6.5 were included in those standards that contain provisions for allowances for defects and acceptance. The sampling plans proposed (inspection levels I and II) are in line with other standards for processed fruits and vegetables where provisions for lot acceptance may require the identification or development of appropriate sampling plans for compliance with an AQL of 6.5

OTHER AMENDMENTS

20. Other amendments have done on a case by case basis as indicated here below. Changes are marked in red. In all cases, the changes proposed are of editorial nature and do not affect the technical provisions of the standards which are subject to review by CCPFV to determine their need for revision.

CANNED FRUITS

CANNED RASPBERRIES (CODEX STAN 62-1981)
CANNED STRAWBERRIES (CODEX STAN 62-1981)

GENERAL COMMENTS

21. The Committee may consider the appropriateness to combine this Standard with the Standard for Canned Strawberries in such a way to allow for future additions of other canned berry fruits (see format of Standards for Canned Vegetables (CODEX STAN 297-2009), Canned Fruits (CODEX STAN 319-2015), etc.). This approach will be in line with the decision of the Committee to prioritize the development of a Standard for Canned Berry Fruits (along the same line as the Standards for Canned Stone Fruits (CODEX STAN 242-2003), Canned Citrus Fruits (CODEX STAN 254-2007), Canned Fruits, etc.) rather than revising individual standards or developing other single standards for canned berry fruits.

22. This approach will also be in line with the work of CCPFV on the review and revision of standards for processed fruits and vegetable to make them simpler and where possible to combine similar products into more general standards to facilitate their up-taking by Codex members and their application in international trade. This approach is also recommended by the Codex Alimentarius Commission to commodity committees when developing commodity standards to the extent possible.

CANNED FRUIT COCKTAIL (CODEX STAN 78-1981)
CANNED TROPICAL FRUIT SALAD (CODEX STAN 99-1981|)

GENERAL COMMENTS

23. The Committee may consider the appropriateness to combine this Standard with the Standard for Canned Tropical Fruit Salads in such a way to allow for future additions of other fruits (see format of Standards for Canned Vegetables (CODEX STAN 297-2009), Canned Fruits (CODEX STAN 319-2015), etc.). This approach will be in line with the decision of the Committee to prioritize the development of a Standard for Canned Mixed Fruits (along the same line as the Standards for Canned Stone Fruits (CODEX STAN 242-2003), Canned Citrus Fruits (CODEX STAN 254-2007), Canned Fruits, etc.) rather than revising individual standards.

24. This approach will also be in line with the work of CCPFV on the review and revision of standards for processed fruits and vegetable to make them simpler and where possible to combine similar products into more general standards to facilitate their up-taking by Codex members and their application in international trade. This approach is also recommended by the Commission to commodity committees when developing commodity standards to the extent possible.

25. The unification of both standards should facilitate application of common provisions e.g. contaminants, hygiene, weights and measures, sampling plan (lot acceptance) and the simplification of similar provisions e.g. additives, labelling, packing media. The amalgamation will however ensure to keep those provisions which are essential for the identity of both products to warrant fair trade practices, in particular the product definition and proportion of fruits as well as any other specific provisions that is unique to identify the product as fruit cocktail or tropical fruit salad in trade.

SPECIFIC COMMENTS

26. According to the format for Codex commodity standards and in particular for the standards for processed fruits and vegetables, the following specific comments are provided for consideration by the Committee:

Styles (not included)

27. It seems that Section 2 provides for definition and description of the different styles in which the product can be presented. It is not clear if, in the particular case of canned fruit cocktails/salads, provisions for “other styles” using the standardized text applying to Codex standards for canned fruits and vegetables should be included to facilitate the application of the Standard and to allow for innovation in industry and trade practices.

28. The Committee may consider this issue. If such additional provisions are appropriate, provisions for labelling of "other styles" should be included in Section 8 following the standardized text applying for the label of this style in Codex standards for canned fruits and vegetables.

Food Additives

Antioxidants

29. Following labelling provisions for citric acid in Section 8.2.3, the Committee may consider whether provisions for L-ascorbic acid under Section 4 would be better located in Section 3.1 (Composition – ingredients) or whether provisions for L-ascorbic acid in Section 8.2.3 should be amended to follow labelling declaration of food additives according to the general provisions of the General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985).

Flavourings

30. Provisions for flavorings were amended to introduce a general reference to the Guidelines for the Use of Flavourings (CAC/GL 66-2008). This provides for flexibility in the application of the Standard and for innovation in industry and trade practices. This is also consistency with the recommendation in the Procedural Manual to address flavourings in Codex commodity standards.

31. Specific provisions for a number of flavoruings were left as such. The Committee may consider whether there is a need to keep these provisions in view of the general reference to the Guidelines and the wide-ranging scope of CAC/GL 66-2008.

32. In addition, see also the section on food additives under work on the review.

PICKLED CUCUMBERS (CUCUMBER PICKLES) (CODEX STAN 115-1981)

33. **GENERAL COMMENTS**

34. The Standard for Pickled Fruits and Vegetables (CODEX STAN 260-2007) specifically excludes pickled cucumbers from the scope. The Committee may however reconsider the opportunity to merge pickled cucumbers with the other pickled vegetables while keeping well defined the specific characteristics of pickled cucumbers in CODEX STAN 260-2007.

SPECIFIC COMMENTS

35. According to the format for Codex commodity standards and in particular for the standards for processed fruits and vegetables, the following specific comments are provided for consideration by the Committee:

Sections 1 (Scope) and 2 (Product definition)

36. The Committee may consider simplify provisions in the scope in light of the requirements specified under the product definition and make it more in line with the wording that usually apply to the scope in Codex standards for canned fruits and vegetables.

Section 7 - Weights and Measures

37. It is proposed to align this section with the provisions that usually applied to weights and measures namely classification of defectives and lot acceptance for minimum fill and provisions for lot acceptance for minimum drained weight. This proposal will ensure consistency with common provisions applying to Codex standards for canned fruits and vegetables. The proposal has been left in square brackets for consideration by the Committee.

CANNED CHESTNUTS AND CHESTNUT PUREE (CODEX STAN 145-1985)

Section 3.1 – Packing Media

38. The Standard only refers to packing media made of water or water with sugars or honey added (syrups). The Guidelines for Packing Media for Canned Fruits are broader and cover other type of packing media composition i.e. juice(s). Therefore, reference is made to the Guidelines while keeping their application to packing media consisting of water or syrups (see also relevant paragraph on packing media under work on the review).

Section 4 – Food Additives

Flavourings

39. Provisions for flavourings were amended to introduce a general reference to the Guidelines for the Use of Flavourings (CAC/GL 66-2008). This provides for flexibility in the application of the Standard and for innovation in industry and trade practices. This is also consistent with the recommendation in the Procedural Manual to address flavourings in Codex commodity standards.

40. Specific provisions for a number of flavours were left as such. The Committee may consider whether there is a need to keep these provisions in view of the general reference to the Guidelines and the wide-ranging scope of CAC/GL 66-2008.

MANGO CHUTNEY (CODEX STAN 160-1987)

GENERAL COMMENTS

41. The Committee may wish to consider development of provisions for definition of defects, defects and allowances, classification of "defectives" and lot acceptance (AQL = 5.6) for compliance with provisions for defects if deemed necessary. This approach will be consistent with other standards for processed fruits and vegetables.

42. The Committee may also wish to consider development of provisions for weights and measures (minimum fill) if deemed necessary. This approach will be consistent with other standards for processed fruits and vegetables.

QUICK FROZEN FRUITS

STANDARD FOR QUICK FROZEN STRAWBERRIES (CODEX STAN 52-1981)
STANDARD FOR QUICK FROZEN RASPBERRIES (CODEX STAN 69-1981)
STANDARD FOR QUICK FROZEN BILBERRIES (CODEX STAN 76-1981)
STANDARD FOR QUICK FROZEN BLUEBERRIES (CODEX STAN 103-1981)
STANDARD FOR QUICK FROZEN PEACHES (CODEX STAN 75-1981)

GENERAL COMMENTS

43. The Committee consider the development of a standard for quick frozen fruits in the same way as for quick frozen vegetables which leaves room for future additions once the revision of the existing individual standards for quick frozen fruits has been completed. In particular the berry fruits share a lot of common provisions that could be referred to into a single standard.

SPECIFIC COMMENTS

Section 1 – Scope

44. Provisions in the scope has been slightly amended to introduce a reference to catering services for consistency with the scope in the Standard for Quick Frozen Vegetables.

Section 2.4 – Styles (new)

45. The Committee may consider to include provisions for other styles in the standards for quick frozen raspberries, bilberries and blueberries to provide for flexibility in the application of this provision and for consistency with other standards for quick frozen fruits and the Standard for Quick Frozen Vegetables.

Classification of "Defectives" and Lot Acceptance

46. Provisions for classification of "defectives" and lot acceptances for composition and quality factors were combined into one single section following the example in the Standard for Quick Frozen Strawberries. This approach simplifies provisions and does not alter the technical content of the standards.

Section 7 – Weights and Measures (new)

47. The Committee may consider the pertinence to include provisions for weights and measures as in the Standard for Quick Frozen Vegetables (for consistency).

Section 9 – Packaging

48. Provisions for packaging were simplified by referring to the Code of Practice for the Processing and Handling of Quick Frozen Foods (CAC/RCP 8-1976). This is consistent with the corresponding provisions in the Standard for Quick Frozen Vegetables.

DRY AND DRIED PRODUCE

STANDARD FOR RAISINS (CODEX STAN 67-1981)
STANDARD FOR DRIED APRICOTS (CODEX STAN 130-1981)
STANDARD FOR UNSHELLED PISTACHIO NUTS (CODEX STAN 131-1981)
STANDARD FOR DATES (CODEX STAN 143-1985)

Provisions for classification of "defectives" and lot acceptance

49. Following provisions for defects and their tolerances, the Committee may consider whether provisions for classification of "defectives" and lot acceptance may be deemed necessary to complete provisions in the standards and if so whether identification or development of appropriate sampling plans or the same applying for an AQL = 6.5 in most of the standards for processed (canned) fruits and vegetables could apply.

FUNGI AND FUNGUS PRODUCTS

GENERAL STANDARD FOR EDIBLE FUNGI AND FUNGUS PRODUCTS (CODEX STAN 38-1981) STANDARD FOR DRIED FUNGI (CODEX STAN 39-1981)

GENERAL COMMENTS

50. The Committee is invited to consider whether the Standard for Edible Fungi and Fungus Products and the Standard for Dried Fungi can be further simplified. If possible, the Standard could be combined into one Standard for Edible Fungi and Fungus Products as CODEX STAN 38-1981 also contains provisions for dried fungi and is general enough to include additional provisions specific to this product from CODEX STAN 39-1981.

SPECIFIC COMMENTS

51. According to the format for Codex commodity standards and in particular for the standards for processed fruits and vegetables, the following specific comments are provided for consideration by the Committee:

Provisions for classification of "defectives" and lot acceptance

52. Both standards contain provisions for defects and allowances for defects but do not provide guidance as to how to implement the provisions as in other standards for processed fruits and vegetables (especially those for canned fruits and vegetables as such products are also covered by this General Standard). Addition of these provisions will complement current provisions for defects i.e. definition and tolerances – general and specific to the different types of fungi products covered by the Standard.

Section 4 – Food Additives (new)

53. The Standard for Dried Fungi currently does not contain provisions for food additives. It is not clear whether provisions in the General Standard for Edible Fungi and Fungus Products will automatically apply if relevant to dried fungi.

54. If the absence of additive provisions indicate that no additives are permitted for use in these products, this should clearly be spelt out in the Standard as proposed in Option 1, which is the language that usually apply in these cases.

55. If additives are used, the Standard should reflect current industry and trade practices and provide for provisions for additives as proposed in either Options 2 or 3 or a combination of both (see also comments on food additives in the General Standard for Edible Fungi and Fungus Products).

56. **Section 6 – Hygiene**

57. The Committee may consider the relevance of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976) in the Standard for Dried Fungi as per freeze-dried fungi since the COP refers to quick freezing operations and not to regular freezing procedures.

58. The General Standard for Edible Fungi and Fungus Products defines quick frozen fungi and provides for provisions for freeze-dried fungi, therefore both terms may refer to the same product and as such provisions in CAC/RCP 8-1976 may apply to the products covered by the Standard for Dried Edible Fungi.

59. However, the text as currently proposed in this Section provides for flexibility to apply other relevant COPs including CAC/RCP 8-1976 either wholly or partially according to good manufacturing practices.

Provisions for weights and measures

60. Provisions for classification of "defectives" were included under this section in the Standard for Edible Fungi and Fungus Products for completeness and consistency with other standards for processed fruits and vegetables. The Committee may consider the relevance to retain the proposed provision.

61. Provisions for weights and measures are no included in the Standard for Dried Fungi. The Committee may consider the appropriateness to include provisions for weights and measures in this Standard in line with the Standard for Edible Fungi and Fungus Products or the existing standards for dry and dried produce and the appropriateness to identify or develop appropriate sampling plans.

Section 8 – Packing, Storage and Transportation

62. The Committee may consider the deletion or simplification of this section taking into account relevant provisions in available codes of hygiene practice and codes of practices (see Standard for Quick Frozen Vegetables).

63. It is noted that these standards were adopted in the early 80s and since then it has never been revised. A lot of Codex texts, especially codes of hygiene practices and codes of practices, have been developed since then which provide for provisions for packing, storage and transportation and therefore, it may not be necessary to keep this section as such or at all anymore.

STANDARD FOR CANNED RASPBERRIES

CODEX STAN 60-1981

1. SCOPE

This Standard applies to canned raspberries, as defined in Section 2 below, and offered for direct consumption, including for catering purposes or for repacking if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Canned raspberries is the product (a) prepared from raspberry varieties conforming to the characteristics of the fruit of *Rubus idaeus* L. or *Rubus occidentalis* L. which are reasonably whole, reasonably sound ripe fruit, and from which extraneous matter including calices and stems have been removed; (b) packed with water or other suitable liquid packing medium; and (c) processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2.2 VARIETAL TYPE

Any suitable variety of raspberry may be used.

2.3 STYLES

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

(a) meets all relevant requirements of the Standard; and

(b) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Raspberries as defined in Section 2.1.

3.1.2 Other Ingredients

3.1.3 Packing Media

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

The cut-out strength of sweetened juice or syrup shall be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if such there be.

3.2 QUALITY FACTORS

3.2.1 Colour

Except for artificially coloured canned raspberries, the raspberries shall have normal colour characteristics for canned raspberries and typical of the variety used.

3.2.2 Flavour

Canned raspberries shall have a normal flavour and odour free from flavours or odours foreign to the product.

3.2.3 Texture

The raspberries shall have a reasonably uniform texture and shall not be excessively firm nor unreasonably soft.

3.2.4 Defects and Allowances

Canned raspberries shall be substantially free from defects within the limits set forth as follows:

Defects	Maximum limits
(a) Blemished berries (consisting of berries which are affected by wind rub, insects, disease, or which are deformed to the extent that the appearance or eating quality is materially affected)	10% m/m of drained raspberries

(b)	Crushed or broken berries (consisting of berries in which more than 50% of the drupelets are crushed, broken, detached, or otherwise damaged to the extent that the original conformation is destroyed)	25% m/m of drained raspberries
	Total of the foregoing defects (a) and (b)	25% m/m of drained raspberries
(c)	Extraneous plant material (based on averages)	
	(i) Stalks (stems) or parts thereof, each longer than 3 mm	2 pieces per 100 grams of drained raspberries
	(ii) Leaves, calices, or portions of any of these, or other similar harmless extraneous plant material	2 sq. cm per 100 grams of drained raspberries

3.2.5 **Classification of "Defectives"**

A container that fails to meet one or more of the applicable quality requirements, as set out in Sections 3.2.1 through 3.2.4 (except extraneous plant material which based on sample averages), shall be considered as a "defective".

3.2.6 **Lot Acceptance**

A lot will be considered as meeting the applicable quality requirements referred to in Section 3.2.5 when:

(a) for those requirements which are not based on averages, the number of "defectives", as defined in Section 3.2.5, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5; and

(b) the requirements which are based on sample averages, are complied with.

4. FOOD ADDITIVES

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 COLOURS

INS No.	Additives Name	Maximum Level
127	Erythrosine - CI 45430	300 mg/kg of the final product singly or in combination
124	Ponceau 4 R - CI 16255	

4.2 [FUNCTIONAL CLASSE(ES)]

INS No.	Additives Name	Maximum Level

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Canned Fruit and Vegetable Products* (CAC/RCP 2-1969), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 FILL OF CONTAINER

7.1.1 Minimum Fill

The container shall be well filled with the product (including packing medium) which should occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 7.1.1 shall be considered as a "defective".

7.1.3 Lot Acceptance

A lot will be considered as meeting the requirement of Section 7.1.1 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

7.1.4 Minimum Drained Weight

7.1.4.1 The drained weight of the product shall be not less than 37% of the weight of distilled water at 20°C which the sealed container will hold when completely filled.[1]

7.1.4.2 ***Lot Acceptance***

The requirements for minimum drained weight shall be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

8. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product shall be "Raspberries".

8.1.2 In the case of raspberries other than red raspberries, the colour of the fruit shall be included as part of the name or in close proximity to the name.

8.1.3 The packing medium shall be declared as part of the name or in close proximity to the name.

8.1.3.1 When the packing medium is composed of water, or water and raspberry juice, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as: "In water" or "Packed in water".

8.1.3.2 When the packing medium is composed solely of raspberry juice, or any other single fruit juice, the packing medium shall be declared as: "In raspberry juice" or "In (name of fruit) juice".

8.1.3.3 When the packing medium is composed of two or more fruit juices, which may include raspberry juice, it shall be declared as: "In (name of fruits) juice" or "In fruit juices" or "In mixed fruit juices".

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[1] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 ml.

8.1.3.4 When sugars are added to raspberry juice or other fruit juices, the packing medium shall be declared as: “Lightly sweetened (name of fruit) juice” or “Heavily sweetened (name of fruits) juice(s)” or “Lightly sweetened fruit juices” or “Heavily sweetened mixed fruit juice(s)” as may be appropriate in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.3.5 When sugars are added to water, or water and a single fruit juice (including raspberry juice) or water and two or more fruit juices, the packing medium shall be declared as: “Light syrup” or “Heavy syrup” or “Water slightly sweetened” or “Slightly sweetened water” or “Extra light syrup” or “Extra heavy syrup” as may be appropriate in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.3.6 When the packing medium contains water and raspberry juice or water and one or more fruit juice(s), in which the fruit juice comprises 50% or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as for example: “Raspberry juice and water” or “(name of fruit) juice(s) and water”.

8.1.4 The style shall be declared as part of the name or in close proximity to the name of the product and shall contain such additional words or phrases that will avoid misleading or confusing the consumer.

8.2 LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR CANNED STRAWBERRIES

CODEX STAN 62-1981

1. SCOPE

This Standard applies to canned strawberries, as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Canned strawberries is the product (a) prepared from strawberries of varieties (cultivars) conforming to the characteristics of the Genus *Fragaria* which are whole, clean, reasonably sound, of proper maturity and from which extraneous matter including calices and stems have been removed; (b) packed with water or other suitable liquid packing medium; and (c) processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

2.2 VARIETAL TYPE

Canned strawberries may be of any suitable variety (cultivar) of cultivated strawberry.

2.3 STYLES

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

(c) meets all relevant requirements of the Standard; and

(d) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Strawberries as defined in Section 2.1.

3.1.2 Other Ingredients

3.1.3 Packing Media

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

The cut-out strength of sweetened juice or syrup shall be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if such there be.

3.2 QUALITY FACTORS

3.2.1 Colour

Except for artificially coloured canned strawberries, the strawberries shall have normal colour characteristics for canned strawberries and typical of the variety used.

3.2.2 Flavour

Canned strawberries shall have a normal flavour and odour free from flavours and odours foreign to the product.

3.2.3 Texture

The strawberries shall have a reasonably uniform texture and shall not be excessively firm or unreasonably soft.

3.2.4 Defects and Allowances

Canned strawberries shall be reasonably free from common defects within the limits set forth as follows:

Defects		Maximum Limits
(a)	Berries with parts of, or with complete, calices	15%, by count
(aa)	Berries with complete calices, limited within the foregoing allowance to	5%, by count
(b)	Blemished berries (consisting of berries with spots caused by mould damage or bird pecks more than 5 mm in diameter and deformed berries)	15% by count
(c)	Broken berries (where the major part is broken or entirely disintegrated)	20%, by count
	Total of all the foregoing defects - (a) and/or (aa), (b) and (c)	30%, by count
(d)	Extraneous plant material (based on averages):	
	(i) Stalks (stems) or parts thereof, each longer than 3 mm	1 piece per 100 grams of drained strawberries
	(ii) Leaves, unattached calices, or portions of any of these, or other similar harmless extraneous plant material	1 cm^2 per 100 grams of drained strawberries

3.2.5 **Mineral Impurities**

Not more than 300 mg/kg of total contents.

3.2.6 **Classification of "Defectives"**

A container that fails to meet one or more of the applicable quality requirements, as set out in Sections 3.2.1 through 3.2.4 (except extraneous plant material which is based on sample averages), shall be considered as a "defective".

3.2.7 **Lot Acceptance**

A lot will be considered as meeting the applicable quality requirements referred to in Section 3.2.6 when:

(c) for those requirements which are not based on averages, the number of "defectives", as defined in Section 3.2.6, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5; and

(d) the requirements which are based on sample averages, are complied with.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2

4.1 **ACIDIFYING AGENTS**

INS No.	Additive Name	Maximum level
330	Citric acid	Limited by Good Manufacturing Practices (GMP)
270	Lactic acid	
296	Malic acid	
334	L-Tartaric acid	

4.1 **COLOURS**

INS No.	Additive Name	Maximum level
127	Erythrosine - CI 45430	300 mg/kg of the final product, (singly or in combination)
124	Ponceau 4R - CI 16255	

4.3 **FIRMING AGENTS**

INS No.	Additive Name	Maximum level
509	Calcium chloride	350 mg/kg of the final product, calculated as total Ca
578	Calcium gluconate	
327	Calcium lactate	

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Canned Fruit and Vegetable Products* (CAC/RCP 2-1969), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 **FILL OF CONTAINER**

7.1.1 **Minimum Fill**

The container shall be well filled with the product (including packing medium) which should occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 **Classification of "Defectives"**

A container that fails to meet the requirement for minimum fill of Section 7.1.1 shall be considered as a "defective".

7.1.3 **Lot Acceptance**

A lot will be considered as meeting the requirement of Section 7.1.1 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

7.1.4 **Minimum Drained Weight**

7.1.4.1 The drained weight of the product shall be not less than 35% of the weight of distilled water at 20°C which the sealed container will hold when completely filled.[1]

[1] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 ml.

7.1.4.2 ***Lot Acceptance***

The requirements for minimum drained weight shall be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

8. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product shall be "Strawberries".

8.1.2 The packing medium shall be declared as part of the name, or in close proximity to the name.

8.1.2.1 When the packing medium is composed of water, or water and strawberry juice, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as: "In water" or "Packed in water"

8.1.2.2 When the packing medium is composed solely of strawberry juice, or any other single fruit juice, the packing medium shall be declared as: "In strawberry juice" or "In (name of fruit) juice"

8.1.2.3 When the packing medium is composed of two or more fruit juices, which may include strawberry juice, it shall be declared as: "In (name of fruits) juice" or "In fruit juices" or "In mixed fruit juices"

8.1.2.4 When sugars are added to strawberry juice or other fruit juices, the packing medium shall be declared as: "Lightly sweetened (name of fruit) juice" or "Heavily sweetened (name of fruits) juice(s)" or "Lightly sweetened fruit juices" or "Heavily sweetened mixed fruit juices(s)" as may be appropriate in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.2.5 When sugars are added to water, or water and a single fruit juice (including strawberry juice) or water and two or more fruit juices, the packing medium shall be declared as: "Light syrup" or "Heavy syrup" or "Water slightly sweetened" or "Slightly sweetened water" or "Extra light syrup" or "Extra Heavy syrup" as may be appropriate in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.2.6 When the packing medium contains water and strawberry juice or water and one or more fruit juice(s), in which the fruit juice comprises 50% or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as, for example: "Strawberry juice and water" or "(name of fruit) juice(s) and water"

8.1.3 The style shall be declared as part of the name or in close proximity to the name of the product and shall contain such additional words or phrases that will avoid misleading or confusing the consumer.

8.2 LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR CANNED FRUIT COCKTAIL

CODEX STAN 78-1981

1. SCOPE

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This Standard applies to canned fruit cocktail, as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Canned fruit cocktail is the product:

(a) prepared from a mixture of small fruits and small pieces of fruits (as further described in this Standard) which may be fresh, frozen or canned.

The fruits shall be of the following kinds and styles:

Peaches - Any firm yellow variety of the species *prunus persica* L. including clingstone and freestone types but excluding nectarines, peeled, pitted and diced.

Pears - Any variety of the species *Pyrus communis* L. or *Pyrus sinensis* L. peeled, cored, and diced.

Pineapple - Any variety of the species *Ananas comosus* L., peeled, cored, in sectors, or diced.

Cherries - Any variety of the species *Prunus cerasus* L., halves or whole, pitted or unpitted, and which may be:

(i) any light, sweet variety; or

(ii) artificially coloured red; or

(iii) artificially coloured red and flavoured, whether natural or artificial.

Grapes - Any seedless variety of the species *Vitis vinifera* L. or *Vitis labrusca* L., whole.

(b) packed with water or other suitable liquid packing medium, which may contain seasonings or flavourings appropriate for the product; and

(c) processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

2.2 PRESENTATION [STYLES?]

2.2.1 Forms of Pack

2.2.1.1 *5 Fruits - Fruit Cocktail*

A mixture of the five fruits of the kinds and styles described in this Standard (Section 2.1(a)).

2.2.1.2 *4 Fruits - Fruit Cocktail*

A mixture of four fruits of the kinds and styles described in this Standard (Section 2.1 (a)) except that:

(a) Cherries may be omitted; or

(b) Grapes may be omitted.

2.2.2 Forms of Packing Media

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

- Fruit as defined in Section 2.1(a);
- Water;
- Fruit juice.

3.1.2 **Other Ingredients**

- One or more of the following sugars: sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup as defined in the *Standard for Sugars* (CODEX STAN 212-1999);
- Spices;
- Mint.

3.2 **FORMULATION**

3.2.1 **Fruit Content**

3.2.1.1 ***Proportions of Fruits***

The products shall contain fruits in the following proportions, based on the individual drained fruit weights in relation to the total drained weight of all the fruits:

	5 Fruits - Fruit Cocktail	**4 Fruits - Fruit Cocktail**
Peaches	30% to 50%	30% to 50%
Pears	25% to 45%	25% to 45%
Pineapple	6% to 16%	6% to 25%
		- and either -
Grapes	6% to 20%	6% to 20%
		Or
Cherries	2% to 6%	2% to 15%

3.2.1.2 ***Lot Acceptance*** ~~***Compliance with fruit content requirements***~~

A lot will be considered as meeting the requirements for proportions of fruits (Section 3.2.1.1) when:

(a) the average of the individual fruit proportions from all containers in the sample is within the range required for the individual fruits; and

(b) the number of individual containers which are not within the range for any one or more fruits do not exceed the acceptance number (c) of an appropriate sampling plan with an AQL of 6.5.

3.2.2 **Packing Media**

3.2.2.1 ***Classification of packing media when sugars are added***

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

3.2.2.2 ***Compliance with packing media classification***

The cut-out strength of sweetened juice or syrup shall be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if such there be.

3.3 **SIZES AND SHAPES OF FRUITS**

3.3.1 **Diced peaches, pears or pineapple**

75% or more of all such drained fruits are of approximate cube-shapes which:

(a) are not over 20 mm in greatest edge dimension; and

(b) will not pass through square meshes of 8 mm.

3.3.2 **Sectors of pineapple**

80% or more of all the drained pineapple portion approximate wedge-shapes of the following dimensions:

(a) outside arc 10 mm to 25 mm; and

(b) thickness 10 mm to 15 mm; and

(c) radius (from inside to outside arc) 20 mm to 40 mm.

3.3.3 **Whole grapes or cherries**

90% or more by count (based on sample average) of whole grapes, or of whole cherries, approximate normal shape except for proper preparation (such as removing pits or stems) and:

(a) are not broken into two or more parts;

(b) are not seriously crushed, mutilated, or torn.

3.3.4 **Halved cherries**

80% or more by count (based on sample average) of the cherry units are approximate halves which are not broken into two or more parts.

3.4 **QUALITY FACTORS**

3.4.1 **Colour**

Canned fruit cocktail shall have normal colour except that a slight leaching of colour from the coloured cherries is acceptable.

3.4.2 **Flavour**

Canned fruit cocktail shall have a normal flavour characteristic for each fruit and for the entire mixture.

Canned fruit cocktail with special ingredients shall have the flavour characteristic of that imparted by the fruits in the product and the other substances used.

3.4.3 **Texture**

The fruit ingredients shall not be excessively firm nor excessively soft, as is appropriate for the respective fruit.

3.4.4 **Defects and Allowances**

Canned fruit cocktail shall be substantially free from defects within the limits set forth as follows:

		Maximum Limits (based on the weight of drained fruit)
(a)	**Blemished fruit pieces** (consisting of pieces of fruit with dark surface areas, spots penetrating the fruit, and other abnormalities)	20% m/m Total of all fruit units so affected
(b)	**Peel** (based on averages) (considered a defect only when occurring on, or from, those fruits which are peeled)	25 cm^2 aggregate area per kg
(c)	**Pit material** (based on averages) - (consisting of pieces of pit or of fruit stones and hard and sharp pit points; very small pit fragments of less than 5 mm in greatest dimension which do not have sharp points or edges are disregarded)	1 piece, of any size per 2 kg
(d)	**Small stems** (based on averages) - (such as capstems from grapes)	5 per kg
(e)	**Large stems** (based on averages) - (such as from peaches, pears, or cherrries)	1 large stem, or piece thereof, per kg

3.4.5 **Classification of "Defectives"**

A container shall be considered as a "defective" when it fails to meet one or more of:

(1) the applicable quality requirements, as set out in Sections 3.3.1 through 3.3.4 (except for style and shapes for grapes and cherries which are based on averages); and

(2) the applicable quality requirements, as set out in Sections 3.4.1 through 3.4.4 (except for peel, pit material, and stems which are based on averages).

3.4.6 **Lot Acceptance**

A lot will be considered as meeting the applicable quality requirements referred to in Section 3.4.5 when:

(a) for those requirements which are not based on averages, the number of "defectives", as defined in Section 3.4.5, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5; and

(b) the requirements, which are based on sample averages, are complied with.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 **ANTIOXIDANTS**

INS No.	Additives Name	Maximum Level
300	L-ascorbic acid	500 mg/kg

4.2 **COLOURS**

INS No.	Additives Name	Maximum Level
127	Erythrosine (to colour cherries only when artificially coloured cherries are used)	GMP

4.3 **FLAVOURINGS**

The flavourings used in products covered by this Standard should comply with the *Guidelines for the Use of Flavourings* (CAC/GL 66-2008).

In addition, the following flavourings apply:

Natural fruit essence	Limited by GMP
Natural flavourings and their identical synthetic equivalents	Limited by GMP
Cherry laurel oil (to flavour artificially coloured cherries only)	10 mg/kg in the total product
Bitter almond oil (to flavour artificially coloured cherries only)	40 mg/kg in the total product

5. **CONTAMINANTS**

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. **HYGIENE**

6.1 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), the *Code of Hygienic Practice for Canned Fruit and Vegetable Products* (CAC/RCP 2-1969), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 FILL OF CONTAINER

7.1.1 Minimum Fill

The container shall be well filled with the product (including packing medium) which shall occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 7.1.1 shall be considered as a "defective".

7.1.3 Lot Acceptance

A lot will be considered as meeting the requirement of Section 7.1.1 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

7.1.4 Minimum Drained Weight

7.1.4.1 The drained weight of the product shall be not less than 60% of the weight of distilled water at 20°C which the sealed container will hold when completely filled.[1]

7.1.4.2 ***Lot Acceptance***

The requirements for minimum drained weight shall be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

8. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product shall be "Fruit Cocktail".

8.1.2 The following, as applicable, shall be included as part of the name or in close proximity to the name, unless in the country where the product is sold a true pictorial representation of the product accompanied by a complete list of the fruits in the statement of ingredients would suffice in accordance with its national legislation: "5 Fruits" or "With Five Fruits" or "4 Fruits" or "With Four Fruits".

8.1.3 When the packing medium is composed of water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as part of the name or in close proximity thereto as: "In water" or "Packed in water".

8.1.4 When the packing medium is composed solely of a single fruit juice, the packing medium shall be declared as part of the name or in close proximity thereto as: "In (name of fruit) juice".

8.1.5 When the packing medium is composed of two or more fruit juices, it shall be declared as part of the name or in close proximity thereto: "In (name of fruits) juice" or "In fruit juices" or "In mixed fruit juices".

8.1.6 When sugars are added to water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as may be appropriate: "Water slightly sweetened" or "Slightly sweetened water" or "Extra light syrup" or "Light syrup" or "Heavy syrup" or "Extra heavy syrup" in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.7 When the packing medium contains water and one or more fruit juice(s), in which the fruit juice comprises 50% or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as for example: "In (name of fruits) juice(s) and water".

8.1.8 When sugars are added to one or more fruit juices, the packing medium shall be declared as may be appropriate: "Lightly sweetened (name of fruit(s)) juice" or "Heavily sweetened (name of fruit(s)) juice" or "Lightly sweetened fruit juices" or "Lightly sweetened mixed fruit juices" or "Heavily sweetened fruit juice" or "Heavily sweetened mixed fruit juices" in accordance with the *Guidelines for Packing Media for Canned Fruits*.

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[1] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 ml.

8.1.9 A declaration, as part of the name or in close proximity to the name, shall be made of any characteristic flavouring; e.g. “With X “, as appropriate.

8.2 **LIST OF INGREDIENTS**

8.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with the *General Standard for the Labelling of Pre-packaged Foods* except as provided for in Sections 8.2.2 and 8.2.3.

8.2.2 When cherries are artificially coloured and/or artificially flavoured, the following declarations are permitted in the list of ingredients in lieu of naming the additive: “Cherries artificially coloured red” or “Cherries artificially coloured red and artificially flavoured”.

8.2.3 If ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients in the following manner: “L-ascorbic acid added as an anti-oxidant”.

8.3 **LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR CANNED TROPICAL FRUIT SALAD

CODEX STAN 99-1981

1. SCOPE

` This Standard applies to canned fruit cocktail, as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 Product Definition

Canned tropical fruit salad is the product (a) prepared from a mixture of basic fruits as specified in Section 2.2 (a) to which may be added one or more optional fruits as specified in Section 2.2 (b); (b) such fruits may be fresh, frozen or canned; (c) the fruit mixture is packed with water or other suitable liquid packing medium and may be packed with nutritive sweeteners and processed by heat in an appropriate manner before or after being sealed in a container so as to prevent spoilage.

2.2 Kinds and Styles of Fruits

The fruit ingredient shall consist of each of the three fruit groups listed under Basic Fruits to which may be added any one or more of the fruits listed under Optional Fruits. The fruit shall be peeled, cored, trimmed, deseeded or pitted as may be applicable for the respective fruit in normal culinary preparation.

(a) **Basic Fruits**

Pineapple (*Ananas comosus* (L.) Merrill) - tidbits, pieces, dices, chips or crisp cut.

Papaya (*Carica papaya* L.) or ***Mango*** (*Mangifera indica* L.) - singly or in combination - slices, dices or sections.

Banana (cultivated edible species of *Musa*) - slices or dices.

(b) **Optional Fruits**

Litchi (*Litchi chinensis* SONN.) - whole or broken segments.

Cashew (*Anacardium occidentale* L.) - as flesh.

Guava (***Guayaba***) - (*Psidum guajava* L.) - quarters, slices, dices or puree.

Longan (*Euphoria longan*) (LOUR. STEUD.) - whole or broken segments.

Oranges (*Citrus sinensis* (L.) OSBECK and *Citrus reticulata* BLANCO) (including ***Mandarin***) whole segments.

Grapefruit (*Citrus paradisi* MACFAD) - whole or half segments.

Grapes (Cultivated edible species of *Vitis*) - whole grapes of any seedless variety.

Maraschino Cherries - (Prepared from fruit conforming with the characteristics of *Prunus avium* L.) - whole or halves (and pitted).

Passion Fruit (Cultivated edible species of *Passiflora*) - pulp (flesh) with or without seeds.

Jack Fruit (*Artocarpu integrifolia* L.) - slices.

Melon (*Cucumis melo* L.) - slices, dices or balls.

Rambutan (*Nephelium lappaceum* L.) - whole or broken segments.

Peach (*Prunus persica* L. BATSCH) - pieces, dices or slices.

Pears (*Pyrus communis* L.) - pieces, dices or slices.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 PROPORTION OF FRUITS (basic ingredients)

3.1.1 Fruits shall be in the following proportions, based on the individual drained fruit weights in relation to the drained weights of all the fruits:

	Minimum	Maximum
Basic Fruits		
Pineapple	45%	65%
Papaya or Mango (singly or in combination)	25%	50%
Banana	5%	20%
Optional Fruits		
Litchi	5%	20%
Melon	5%	20%
Longan	5%	20%
Guava, (except puree, as specified in 2.1.2)	5%	20%

3.1.2 The following optional fruits are not considered in the determination of proportions of fruit as their consistency after processing prevents an accurate determination of their drained weight. However, it is recommended that they make up following percentages of the fruit ingredients present:

	Minimum	Maximum
Guava puree (see 2.1.1)	5%	20%
Cashew	2%	5%
Passion Fruit	1%	5%
Jack Fruit	5%	15%
Grape	3%	20%
Rambutan	5%	20%
Oranges (including Mandarin)	3%	15%
Maraschino Cherries	1%	4%
Peach	5%	20%
Grapefruit	3%	15%
Pears	5%	20%
Water melon	5%	15%
Carambola	5%	20%

3.1.3 **Lot Acceptance**

A lot will be considered as meeting the requirements for proportions of fruits when:

(a) the average of the individual fruit proportions (except those in Section 3.1.2 above) from all containers in the sample is within the range required for the individual fruits; and

(b) the number of individual containers which are not within the range for any one or more fruits do not exceed the acceptance number (c) of an appropriate sampling plan with an AQL of 6.5.

3.2 **PACKING MEDIA**

3.2.1 **Forms of Packing Media**

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

3.2.2 **Classification of packing media when sugars are added**

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

3.2.3 **Compliance with packing media classification**

Cut-out strength of sweetened juice or syrup shall be determined on sample average, but no container may have a Brix value lower than that of the minimum of the next category below, if such there be.

3.3 QUALITY FACTORS

3.3.1 Colour

Canned tropical fruit salad shall have a colour characteristic of the mixed processed fruit, except that a slight bleaching of colour from the coloured cherries is acceptable.

3.3.2 Flavour

Canned tropical fruit salad shall have a normal flavour and odour characteristic for the particular blend of fruit.

3.3.3 Texture

The texture of the fruit ingredient shall be appropriate for the respective fruit.

3.3.4 Defects and Allowances

Canned tropical fruit salad shall be substantially free from defects within the following prescribed limits.

Defect	Maximum Limits
(a) ***Blemished fruit pieces*** (consisting of pieces of fruit with dark fruit surface areas, spots penetrating the fruit, and other abnormalities)	2 pieces/100 g of drained
(b) ***Peel*** (based on averages) (considered a defect only when occurring on, or from those fruits total contents which are peeled)	6.5 cm^2/500 g of
(c) ***Seeds (other than Passion fruit seeds)***	2 g/500 g of total contents
Seed Material and Extraneous Vegetable Matter	

3.3.5 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in Sections 3.3.1 through 3.3.4 shall be considered as a "defective".

3.3.6 Lot Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in Section 3.3.5 when:

(a) for those requirements which are not based on averages, the number of "defectives", as defined in Section 3.3.5, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5; and

(b) the requirements, which are based on sample averages, are complied with.

4. FOOD ADDITIVES

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 ACIDITY REGULATORS

INS No.	Additives Name	Maximum Level
330	Citric acid	Limited by GMP

4.2 **ANTIOXIDANTS**

INS No.	Additives Name	Maximum Level
300	Ascorbic acid, L-	700 mg/kg

4.3 **COLOURS**

INS No.	Additives Name	Maximum Level
127	Erythrosine (to colour cherries)	Limited by GMP

4.4 **FIRMING AGENTS**

INS No.	Additives Name	Maximum Level
509	Calcium chloride	350 mg/kg singly or in combination, calculated as Ca
327	Calcium lactate	
578	Calcium gluconate	

4.5 **FLAVOURINGS**

The flavourings used in products covered by this Standard should comply with the *Guidelines for the Use of Flavourings* (CAC/GL 66-2008).

In addition, the following flavourings apply:

Cherry laurel oil (to flavour artificially coloured cherries only)	10 mg/kg in the total product
Bitter almond Oil (to flavour artificially coloured cherries only)	40 mg/kg in the total product
Natural flavourings and nature-identical flavourings	Limited by GMP

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Canned Fruit and Vegetable Products* (CAC/RCP 2-1969), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 **FILL OF CONTAINER**

7.1.1 **Minimum Fill**

The container shall be well filled with the product (including packing medium) which shall occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 **Classification of "Defectives"**

A container that fails to meet the requirement for minimum fill of Section 7.1.1 shall be considered as a "defective".

7.1.3 **Lot Acceptance**

A lot will be considered as meeting the requirement of Section 6.1.1 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

7.1.4 **Minimum Drained Weight**

7.1.4.1 The drained weight of the product should be not less than 60% of the weight of distilled water at 20°C which the sealed container will hold when completely filled.[1]

7.1.4.2 ***Lot Acceptance***

The requirements for minimum drained weight should be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

8. **LABELLING**

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

8.1 **NAME OF THE PRODUCT**

8.1.1 The name of the product shall be "Tropical Fruit Salad", "Tropical Fruit Cocktail" or "Tropical Fruit Mix".

8.1.2 When the packing medium is composed of water, or water and one or more fruit juices in which water predominates, the packing medium shall be declared as part of the name or in close proximity thereto, as: "In water" or "Packed in water".

8.1.3 When the packing medium is composed solely of a single fruit juice, the packing medium shall be declared as part of the name or in close proximity thereto, as: "In (name of fruit) juice"

8.1.4 When the packing medium is composed of two or more fruit juices, it shall be declared as part of the name or in close proximity thereto: "In (name of fruits) juice" or "In fruit juices" or "In mixed fruit juices"

8.1.5 When sugars are added to one or more fruit juices, the packing medium shall be declared as may be appropriate: "Lightly sweetened (name of fruit) juice" or "Heavily sweetened (name of fruits) juice(s)" or "Lightly sweetened fruit juices" or "Heavily sweetened mixed fruit juice(s)" in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.6 When sugars are added to water, or water and one or more fruit juices, the packing medium shall be declared as may be appropriate: "Light syrup" or "Heavy syrup" or "Water slightly sweetened" or "slightly sweetened water" or "Extra light syrup" or "Extra heavy syrup" in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.7 When the packing medium contains water and one or more fruit juice(s), in which the fruit juice comprises 50% or more by volume of the packing medium, the packing medium shall be designated to indicate the preponderance of such fruit juice, as, for example: "(name of fruits) juice(s) and water"

8.2 **List of Ingredients**

8.2.1 A complete list of ingredients shall be declared on the label in descending order of proportion in accordance with the *General Standard for the Labelling of Pre-packaged Foods*, except as provided for in Sections 8.2.2 and 8.2.3.

8.2.2 The declaration of Maraschino Cherries shall be: "Cherries artificially coloured and flavoured"

8.2.3 If L-ascorbic acid is added to preserve colour, its presence shall be declared in the list of ingredients in the following manner: "L-ascorbic acid added as an antioxidant"

[1] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 ml.

8.3 LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR PICKLED CUCUMBERS (CUCUMBER PICKLES)
CODEX STAN 115-1981

1. SCOPE

This Standard applies to pickled cucumbers (in some countries "cucumber pickles") intended for direct consumption which are:

(a) prepared with cucumbers as the predominant ingredient;

(b) prepared from desalted cured cucumbers, fermented naturally or by controlled fermentation, or from fresh cucumbers which are acidulated;

(c) preserved through natural or control fermentation or added acidulants and may be further preserved by pasteurization with heat, by other physical means or by chemical preservatives.

In some countries, the word "cucumbers" is associated with large size fruit whereas the word "gherkin" refers to small fruit. Irrespective of customary national trade practice these products are included in this Standard.

This Standard does not cover finely chopped products called relish.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Picked cucumbers is the product:

(a) prepared from clean, sound cucumbers of cultivars conforming to the characteristics of *Cucumis sativus* L.;

(b) such cucumbers may or may not be peeled and may or may not have seeds removed;

(c) packed with or without a suitable liquid packing medium and seasoning ingredients appropriate to the product;

(d) is preserved in an appropriate manner before or after the container is closed - such preservation to include acidulation to a pH of 4.6 or less either by natural or controlled fermentation or addition of a vinegar or an edible acid, and may also include heat pasteurization, refrigeration or a chemical preservative.

2.2 TYPES AND KINDS OF PACK

2.2.1 Fresh Pack Type

Prepared from fresh, uncured and unfermented cucumbers.

2.2.2 Cured Type

Prepared from cucumbers which have been cured in salt brine or in other suitable curing solution with or without natural or controlled fermentation. Such salt stock may be sufficiently desalted, if necessary, during preparation for processing.

2.2.3 Sub-Types

Analytical characteristics of the sub-type are determined on the packing medium after equalization.

Sub-type	Characterizing flavour	Prepared from _____ Type
(a) Dill	Dill herb and/or oil of dill	Fresh-pack or Cured Types
(b) "____" (Name of herb)	Herb and oils thereof other than dill herb and/or oil of dill	Fresh-pack or Cured Types
(c) Sour	Pronounced sour	Fresh-pack or Cured Types
(d) Sweet-sour	Moderately sweet-sour	Fresh-pack or Cured Types
(e) Sweet	Pronounced sweet	Fresh-pack or Cured Types
(f) Mustard	Mustard sauce, mustard seed and/ or oil of mustard	Fresh-pack or Cured Types
(g) Salt sour	Pronounced salty	Fresh-pack Type
(h) Mild	Neither sweet nor sour	Fresh-pack or Cured Types
(i) Hot	Pronounced pepper	Fresh-pack or Cured Types

Sub-type	Total Acidity (as acetic acid)	Salt (NaC1)	Salt free soluble solids
(a) Dill	0.4% to 2.0%	1.0% to 4.5%	-
(b) "_____" (Name of herb)	0.4% to 2.0%	1.0% to 4.5%	-
(c) Sour	0.7% to 3.5%	1.0% to 5.0%	-
(d) Sweet-Sour	0.5% to 2.0%	0.5% to 3.0%	1.5% to less than 14%
(e) Sweet	0.5% to 2.5%	0.5% to 3.0%	14.0% minimum
(f) Mustard	0.5% to 3.0%	1.0% to 3.0%	-
(g) Salt sour	0.5% to 3.5%	5.0% to 10%	-
(h) Mild	0.4% to 0.7%	1.0% to 3.5%	-
(i) Hot	0.5% to 3.0%	1.0% to 3.0%	-

2.3 **STYLES**

The product shall be presented in one of the following styles:

(a) ***Whole*** - Cucumbers with a maximum diameter of 54 mm. In containers larger than 4 litres the cucumbers may have a maximum diameter of 65 mm. Whole cucumbers of this style may be designated as "gherkin" when they are not larger than 27 mm in diameter.

(b) ***Whole curved*** - Whole cucumbers with a maximum diameter of 54 mm and curved at least 35°.

(c) ***Halves*** - Cucumbers divided lengthwise into halves.

(d) ***Finger cut, Sliced lengthwise of Spears*** - Cucumbers cut lengthwise into sections of approximately equal size.

(e) ***Ring cut or Chunks*** - Cucumbers cut at right angles to the longitudinal axis having a thickness from 10 to 40 mm and a maximum diameter of 54 mm.

(f) ***Slices or Cross cuts or Chips*** - Cucumbers cut at right angles to the longitudinal axis having a thickness of not more than 10 mm and a maximum diameter of 54 mm.

(g) ***Strips ("Asier")*** - Large cucumbers, peeled, divided lengthwise. The prepared halves are cut at right angle to the longitudinal direction into strips of approximately 10 mm width.

2.4 **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.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Cucumbers as specified in Sections 1 and 2.

3.1.2 **Other Ingredients**

- Water
- Vinegar
- Salt (Sodium chloride)
- Vegetable Oils
- Nutritive carbohydrate sweeteners
- Paprika
- Herbs
- Spices
- Condiments
- Vegetables shall not exceed 5% of the total weight of the product, except for the sub-type "mustard" which may contain no more than 30%.

3.2 **QUALITY FACTORS**

3.2.1 **Colour**

The cucumbers shall have normal colour characteristics typical of the variety, type of pack and style.

3.2.2 **Texture**

The cucumbers shall be reasonably firm, crisp and practically free from shrivelled, soft and flabby units and reasonably free from very large seeds.

3.2.3 **Flavour**

The cucumbers shall have a good flavour typical of the type of pack and in consideration of any characterizing flavouring or special ingredients used.

3.2.4 **Size Uniformity**

(a) **Whole style: Spears or Sliced lengthwise**

80% or more, by count, of the cucumbers shall meet the following requirements:

Length - the length of the longest unit shall not exceed that of the shortest unit by more than 50%.

Diameter - the diameter of the largest unit shall not exceed that of the smallest unit by more than 50%.

These requirements do not apply to cucumbers packed in containers of over 4 litres.

(b) **Ring cut; Slices; Cross cuts**

80% or more by weight of units having the most uniform size meet the following requirement for individual containers or sample units.

Diameter - the diameter of the largest unit shall not exceed that of the smallest unit by more than 50%.

3.2.5 **Definition of Defects**

(a) ***Curved Cucumbers*** - means whole cucumbers that are curved at an angle of 35° when measured as illustrated in Annex I.

(b) ***Misshaped Cucumbers*** - means whole cucumbers, nubbins, and other deformed cucumbers as illustrated in Annex I.

(c) ***Blemished*** - means affected to a degree that materially detracts from appearance and edibility by discolouration, scars, scratches, skin breaks or other similar imperfections.

(d) ***Mechanical damage*** - means crushed or broken units.

(e) ***Stem*** - means any stalk longer than 15 mm.

(f) ***Poor texture*** - excessively shrivelled, very soft or flabby or units with very large seeds.

(g) ***Off colour*** - units that vary markedly from the colour typical of the variety and type of pack.

(h) ***Hollow centres*** - whole cucumbers in which the internal cavity is large or Ring cuts and Slices in which a substantial portion of the centre is missing.

(i) ***Grit, sand or silt*** - means any mineral impurities, whether in the liquid packing medium or imbedded in the skin or flesh of the cucumbers that affect the edibility.

3.3.6 **Allowances for Defects**

Whole; Whole curved: Halves: Finger Cut or Spears

Standard sample unit - 20 whole cucumbers: or 40 halves, finger cut or spears.

Defect	Maximum Limit (No. of Units)	
	Whole curved whole	Halves Finger cut or Spears
(a) Curved (except curved style)	3	2
(b) Misshapen	2	1
(c) Blemished	3	3
(d) Mechanical damage	2	3
(e) Stem	3	2
(f) Poor texture	1	3
(g) Off colour	1	2
(h) Hollow centre	1	-
Maximum allowable total (a) through (h)	7	11

Ring cuts; Slices; Strips

Standard Sample unit - 300 g drained pickles.

Defect	Maximum Limit in g
(a) Blemished	15
(b) Mechanical damage	30
(c) Poor texture	10
(d) Off colour	10
(e) Hollow centre	30
(f) Stems	2 each
Maximum allowable total (a) through (e)	75 g

3.2.7 **Mineral Impurities**

All styles and types, except for cucumbers that are peeled not more than 0.08% m/m.

3.3 **CLASSIFICATION OF "DEFECTIVES"**

A container that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 shall be considered as a "defective".

3.4 **LOT ACCEPTANCE**

A lot will be considered as meeting the applicable quality requirements referred to in Section 3.2 when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 **ACIDITY REGULATORS**

INS No.	Additives Name	Maximum Level
260	Acetic acid, glacial	Limited by GMP
270	Lactic acid, L-, D- and DL	
296	Malic acid, DL-	
330	Citric acid	

4.2 **COLOURS**

INS No.	Additives Name	Maximum Level
100(ii)	Turmeric	300 mg/kg singly or in combination
101	Riboflavin	
102	Tartrazine	
110	Sunset Yellow FCF	
133	Brilliant Blue FCF	
141(ii)	Chlorophyll copper complex	
143	Fast Green FCF	
160a	Carotene	
160b	Annatto extracts	
160c(i)	Paprika Oleoresin	
150a	Caramel I – plain caramel	
150d	Caramel IV - sulfite ammonia caramel	

4.3 **FIRMING AGENTS**

INS No.	Additives Name	Maximum Level
327	Calcium lactate	250 mg/kg singly or in combination
509	Calcium chloride	
578	Calcium gluconate	

4.4 **PRESERVATIVES**

INS No.	Additives Name	Maximum Level
202	Potassium sorbate	1000 mg/kg singly or in combination
210	Benzoic acid and its sodium and potassium salts	
220	Sulfur dioxide (as a carry over from raw product)	50 mg/kg

4.5 **SOLUBILIZING AND ~~DISPERSING AGENTS~~ EMULSIFIERS**

INS No.	Additives Name	Maximum Level
401-404	Alginate (Ca, NH_4, Na, K)	500 mg/kg singly or in combination
406	Propylene glycol alginate	
407	Carrageenan	
415	Xanthan gum	
423	Gum Arabic	
432	Polysorbate 80 monooleate (polyoxyethylene 20 sorbitan)	

4.6 **THICKENERS**

INS No.	Additives Name	Maximum Level
412	Guar gum	Limited by GMP
410	Carob bean gum	
423	Gum Arabic	

4.7 **FLAVOURINGS**

The flavourings used in products covered by this Standard should comply with the *Guidelines for the Use of Flavourings* (CAC/GL 66-2008).

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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 codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 **FILL OF CONTAINER**

7.1.1 **Minimum Fill** (pickles plus packing medium)

The container shall be well filled with the product (including packing medium) which shall occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 **Minimum volume fill for whole and whole curved styles**

The cucumber ingredient shall occupy not less than 55% for cured type and 53% for fresh-pack type of the total capacity (volume) of the container.

7.1.3 **Minimum volume fill for all styles except whole**

The vegetable and fruit ingredient in styles other than whole shall occupy:

(a) not less than 55% in the case of fresh pack; and

(b) not less than 57% in the case of cured, of the total capacity (volume) of the container.

[7.1.4 **Classification of "Defectives"**

A container that fails to meet the requirement for minimum fill of Section 7.1.1 through 7.1.3 shall be considered as a "defective".

7.1.3 **Lot Acceptance**

A lot will be considered as meeting the requirement of Sections 7.1.1 through 7.1.3 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

7.1.4 **Minimum Drained Weight**

7.1.4.1 The drained weight of the product should be not less than [XX]% of the weight of distilled water at 20°C which the sealed container will hold when completely filled.[1]

7.1.4.2 ***Lot Acceptance***

The requirements for minimum drained weight should be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.]

7.2 **LOT ACCEPTANCE**

The requirements for fill of container (as specified in Section 7.1) shall be deemed to be complied with when the average from all containers is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

8. **LABELLING**

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

8.1 **NAME OF THE PRODUCT**

8.1.1 The name of the product is: "Pickled Cucumbers", "Cucumber Pickles", "Pickles" or "Gherkins".

8.1.2 The following shall be included in close proximity to the name of the product:

(a) the type of pack, e.g. "Fresh pack" or "Cured pack";

(b) the style of pack and the sub-type, including the name of the herb in relation to sub-type in Section 2.2.3 (b);

(c) the sub-type "dill" which may be declared "Natural dill" or "Genuine dill" when the cucumbers are fermented naturally in a low salt concentration brine;

(d) in whole style, the approximate count range in containers larger than 4 litres.

8.1.3 If the product is produced in accordance with the other styles provision (Section 2.3), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

8.2 **LABELLING 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.

9. **METHODS OF ANALYSIS AND SAMPLING**

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

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[1] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 ml.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

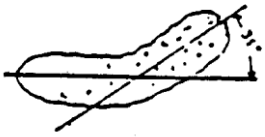
(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

ANNEX

VISUAL AID ILLUSTRATING CURVED AND MISSHAPEN CUCUMBERS

(a) ***Curved cucumber***. A curved cucumber is one that is curved at an angle of 35 degrees or more, when measured as illustrated.



(b) ***Misshapen cucumbers***. Misshapen cucumbers include crooked, nubbins, and otherwise misshapen cucumbers. A nubbin cucumber is one that is not cylindrical in form, is short and stubby, or is not well developed. Nubbins and otherwise misshapen cucumbers are similar to the following illustrations:

STANDARD FOR CANNED CHESTNUTS AND CANNED CHESTNUT PUREE

CODEX STAN 145-1985

1. SCOPE

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This Standard applies to canned chestnuts and canned chestnut puree, as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

2.1.1 Canned chestnuts is the product (a) prepared from fresh, sound, mature chestnuts of varieties conforming to the characteristics of the species *Castanea crenata* Sieb et Zucc. (Japanese chestnut) or *Castanea sativa* Miller (European chestnut) which shall be shelled and may be pellicled or unpellicled;[7] (b) packed with or without water which may or may not contain sugars, seasonings and other ingredients appropriate to the product; and (c) processed by heat in an appropriate manner, before or after being hermetically sealed in a container, so as to prevent spoilage.

2.1.2 Canned chestnut puree is the product (a) pureed by sieving, or other mechanical means in order to obtain a fruit pulp from chestnuts, as defined in Section 2.1.1(a); (b) packed with or without sugars and other ingredients appropriate to the product; and (c) heat processed by a procedure as defined in Section 2.1.1(c).

2.2 STYLES

2.2.1 **Canned Chestnuts**

Canned chestnuts may be packed in the following styles:

(a) ***Whole*** - whole chestnuts which are pellicled or unpellicled and/or trimmed into a practical tetrahedron.

(b) ***Brokens*** - small pieces which may not be uniform in size and/or shape.

2.2.2 **Canned Chestnut Puree**

(a) ***Sweetened*** - with added sugars listed in Section 2.1(b); not less than 12 percent total soluble solids (12°Brix).

(b) ***Unsweetened*** - without added sugars; not less than 10 percent total soluble solids (10°Brix).

2.2.3 **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.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 **Basic Ingredients**

Chestnuts as described in Section 2.1.

3.1.2 **Packing Media**

3.1.2.1 Where a packing medium is used, it may consist of water or water which may have one or more of the following sugars: sucrose, invert sugar syrup, dextrose, dried glucose syrup, glucose syrup, fructose, fructose syrup as defined in the *Standard for Sugars* (CODEX STAN 212-1999) or honey as defined in the *Standard for Honey* (CODEX STAN 12-1981) in accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 12-1981).

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[7] In the case of unpellicled chestnuts, they should be previously processed by alcohol so as to remove the astringency of the pellicles.

3.1.2.2 ***Classification of packing media when sugars are added***

In accordance with the *Guidelines for Packing Media for Canned Fruits* (CAC/GL 51-2003).

The cut-out strength for any packing medium shall be determined on average, but no container may have a Brix value lower than that of the next category below.

3.1.3 **Other Ingredients**

Canned chestnut puree may contain "sugars", as listed in Section 3.1.2.1, they shall amount to not more than 2 percent of total net contents. Canned Chestnuts and Chestnut Puree may contain "salt" (sodium chloride) in an amount not exceeding 1 percent of total net contents.

3.2 **QUALITY FACTORS**

3.2.1 **Colour**

When colour is not added, canned chestnuts or canned chestnut puree shall have a normal colour characteristic of the varieties used. Browning and discolouration shall be regarded as defects.

3.2.2 **Flavour**

Canned chestnuts or canned chestnut puree shall have a normal flavour and odour free from flavours and odours foreign to the products.

3.2.3 **Texture**

3.2.3.1 Canned chestnuts shall have a reasonably uniform thick texture and shall not be excessively firm nor unreasonably soft.

3.2.3.2 Canned chestnut puree shall have a uniform consistency and particle size.

3.2.4 **Uniformity of Size**

Whole - in 95 percent, by count, of units that are most uniform in size, the weight of the largest unit shall be no more than twice the weight of the smallest unit.

3.2.5 **Defects and Allowances**

The product shall be substantially free from defects such as harmless plant material, shell, pellicle (in pellicled styles), blemished units, split and broken units (in whole styles) and discoloured units. Slight syneresis in canned chestnut puree should not be regarded as a defect. Certain common defects shall not be present in amounts greater than the following limitations:

(a) Not more than 14 percent by mass of chestnuts on the net drained weight; and

(b) Not more than 20 percent of chestnuts which are not whole on the net drained weight for the style "whole".

3.2.6 **Classification of "Defectives"**

A container that fails to meet one or more of the applicable quality requirements, as set out in Sections 3.2.1 through 3.2.5 (except extraneous plant material which is based on an average of the entire sample), shall be considered as a "defective".

3.2.7 **Lot Acceptance**

A lot will be considered as meeting the applicable quality requirements referred to in Section 3.4.5 when the number of "defectives", as defined in Section 3.2.6, does not exceed the acceptance number (c) of the appropriate sampling plan with an Acceptable Quality Level (AQL) of 6.5.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 **ACIDITY REGULATORS**

INS No.	Additives Name	Maximum Level
330	Citric acid	Limited by GMP
296	Malic acid, DL	
334	Tartaric acid, L(+)-	10 mg/kg

4.2 **ANTIOXIDANTS**

INS No.	Additives Name	Maximum Level
300	Ascorbic acid, L-	300 mg/kg expressed as ascorbic acid, singly or in combination
301	Sodium ascorbate	

4.3 **BLEACHING AGENT**

INS No.	Additives Name	Maximum Level
220	Sulphur dioxide (not authorized in puree)	30 mg/kg, calculated as $S0_2$

4.4 **COLOURS**

INS No.	Additives Name	Maximum Level
100(ii)	Turmeric (CI 75300)	Limited by GMP
	Crocin (CI 75100)	
	Carthamus Yellow (CI 75140)	

4.5 **SEQUESTRANTS**

INS No.	Additives Name	Maximum Level
452(i)	Sodium polyphosphate	Limited by GMP

4.6 **THICKENERS**

INS No.	Additives Name	Maximum Level
440	Pectins	Limited by GMP

4.7 **FLAVOURINGS**

The flavourings used in products covered by this Standard should comply with the *Guidelines for the Use of Flavourings* (CAC/GL 66-2008).

In addition, the following flavourings apply:

Extract of vanilla	Limited by GMP
Vanillin	Limited by GMP

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Edible Fungi* (CAC/RCP 5-1971), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 FILL OF CONTAINER

7.1.1 Minimum Fill

The container should be well filled with the product (including packing medium) which should occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 7.1.1 should be considered as a "defective".

7.1.3 Lot Acceptance

A lot should be considered as meeting the requirement of Section 6.1.1 when the number of "defectives", as defined in Section 7.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

7.1.4 Minimum Drained Weight

7.1.4.1 The drained weight of the product shall be not less than the following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled.[8]

(a) Not less than 300 ml of water capacity of the container 60%

(b) Less than 300 ml of water capacity of the container 55%

7.1.4.2 ***Lot Acceptance***

The requirements for minimum drained weight should be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

8. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product shall be "chestnuts" if it meets the definition in Section 2.1.1 or "chestnut puree" if it meets the definition in Section 2.1.2.

8.1.2 The style, as appropriate, shall be declared as a part of the name or in close proximity to the name: "Whole" or "Brokens" or "Sweetened" (in the case of chestnut puree only) or "Unsweetened" (in the case of chestnut puree only).

If the product is produced in accordance with the other styles provision (Section 2.2.3), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

8.1.3 The term "unpellicled" shall be declared as appropriate as part of the name or in close proximity to the name.

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[8] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20°C which the sealed container will hold when completely filled less 20 ml.

8.1.4 The packing medium shall be declared as part of the name or in close proximity to the name:

8.1.4.1 When the packing medium is composed of water, the packing medium shall be declared as: “In water” or “Packed in water”.

8.1.4.2 When nutritive sweeteners are added to water, the packing medium shall be declared as: “Slightly sweetened water” or “Water slightly sweetened” or “Extra light syrup” or “Light syrup” or “Heavy syrup” or “Extra heavy syrup” in accordance with the *Guidelines for Packing Media for Canned Fruits*.

8.1.4.3 When the packing medium contains no added sweetening agents, the term “no added sugar” or other words of similar import may be used in association with, or in close proximity to the name of the food.

8.2 **LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR MANGO CHUTNEY

CODEX STAN 160-1987

1. SCOPE

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This Standard applies to mango chutney, as defined in Section 2 below and offered for direct consumption, including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Mango chutney is the product prepared from washed, clean, sound mango fruits (*Mangifera indica* L.) which have been peeled and are sliced, chopped, shredded or comminuted, then heat processed with basic ingredients before or after being sealed in containers so as to prevent spoilage.

2.2 VARIETAL TYPES

Any suitable variety of the fruit *Mangifera indica* L.

2.3 STYLES

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

(a) meets all relevant requirements of the Standard; and

(b) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Minimum Content of Fruit Ingredients

The product shall contain not less than 40% m/m of mango fruit ingredient in the finished product.

3.1.2 Basic Ingredients

Sugars as defined in the *Standard for Sugars* (CODEX STAN 212-1999), honey as defined in the *Standard for Honey* (CODEX STAN 12-1981), other fruits and vegetables, salt (sodium chloride), spices and condiments (such as vinegar, onion, garlic and ginger) and other suitable food ingredients.

3.1.3 Minimum Percentage of Total Soluble Solids

The total soluble solids content shall be not less than 50% m/m of the finished product.

3.2 QUALITY FACTORS

3.2.1 Colour

The product shall have a normal colour characteristic of mango chutney.

3.2.2 Flavour

The product shall have characteristic flavour and odour of mango chutney free from flavour or odour foreign to the product.

3.2.3 Consistency

The product shall possess good consistency and be reasonably free from fibrous matter. The fruit pieces shall possess a reasonably tender tissue.

3.2.4 Ash

The total ash and ash insoluble in hydrochloric acid shall not exceed 5% m/m and 0.5% m/m respectively.

3.2.5 Defects

The number, size and presence of defects such as seed or particles thereof, peels, or any other extraneous matter shall not seriously affect the appearance or the eating quality of the product.

4. FOOD ADDITIVES

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 ACIDITY REGULATORS

INS No.	Additives Name	Maximum Level
330	Citric acid	To maintain the pH at a level not above 6 if the product is heat pasteurized or limited by GMP if the product is heat sterilized.
260	Acetic acid	

4.2 PRESERVATIVES

INS No.	Additives Name	Maximum Level
223	Sodium metabisulfite	100 mg/kg singly or in any combination expressed as SO_2.
224	Potassium metabisulfite	
212	Potassium benzoate	250 mg/kg singly or in any combination expressed as the acid.
211	Sodium benzoate	
214	Ethyl para-hydroxybenzoate	
216	Propyl para-hydroxybenzoate	
218	Methyl para-hydroxybenzoate	
200	Sorbic acid	1000 mg/kg

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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 codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

7.1 NAME OF THE PRODUCT

7.1.1 The name of the product to be declared on the label shall be “Mango Chutney”.

7.1.2 The style shall be declared as part of the name or in close proximity to the name of the product and shall contain such additional words or phrases that will avoid misleading or confusing the consumer.

7.3 LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

CODEX STANDARD FOR QUICK FROZEN STRAWBERRIES

CODEX STAN 52-1981

1. SCOPE

This Standard shall apply to quick frozen strawberries (excluding quick frozen strawberry puree) of the species *Fragaria grandiflora* L. and *Fragaria vesca* L. as defined in Section 2 below and offered for direct consumption including for catering purposes without further processing, except for size-grading or re-packing if required. It does not apply to the product when indicated as intended for further processing or for other industrial purposes.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Quick frozen strawberries are the product prepared from fresh, clean, sound, ripe and stemmed strawberries of firm texture conforming to the characteristics of *Fragaria grandiflora* L. or *Fragaria vesca* L.

2.2 PROCESS DEFINITION

Quick frozen vegetable is the product subject to a freezing process in appropriate equipment and complying with the conditions laid down hereafter and in the corresponding Annexes. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick freezing process shall not be regarded as complete unless and until the product temperature has reached -18°C (0°F) at the thermal centre after thermal stabilization. The recognized practice of repacking quick frozen products under temperature controlled conditions is permitted.

2.3 HANDLING PRACTICE

The product shall be handled under such conditions as will maintain the quality during transportation, storage and distribution up to and including the time of final sale. It is recommended that during storage, transportation, distribution and retail, the product be handled in accordance with the provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

2.4 PRESENTATION

2.4.1 Styles

(a) Quick frozen strawberries shall be presented as whole, halved, sliced or cut.

(b) Quick frozen strawberries may be presented as free-flowing (i.e. as individual berries not adhering to one another) or non-free-flowing (i.e. as a solid block).

2.4.2 Other Styles

Any other presentation of the product shall 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; and

(c) is adequately described on the label to avoid confusing or misleading the consumer.

2.4.3 Sizing

(a) Whole strawberries may be presented as sized or unsized.

(b) If whole strawberries are size graded they shall be reasonably uniform within each package such that the diameter of the largest berry does not exceed the diameter of the smallest berry by more than 10 mm, measured according to the maximum diameter.

(c) In the case of *Fragaria grandiflora* L. the maximum diameter of each berry whether sized or unsized shall not be less than 15 mm.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Strawberries as defined in Section 2.1.

3.1.2 **Other Ingredients**

Sugars (sucrose, invert sugar, dextrose, fructose, glucose syrup, dried glucose syrup) as defined in the *Standard for Sugars* (CODEX STAN 212-1999).

3.2 **OTHER COMPOSITION**

3.2.1 **Strawberries prepared with dry sugars**

The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 35% m/m nor less than 18% m/m expressed as sucrose, as determined by refractometer at 20°C.

3.2.2 **Strawberries prepared with syrup**

The amount of syrup used shall be not more than that required to cover the berries and fill the spaces between them. The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 25% m/m nor less than 15% m/m expressed as sucrose, as determined by refractometer at 20°C.

3.3 **QUALITY FACTORS**

3.3.1 **General Requirements** ~~**Organoleptic and other characteristics**~~

Quick frozen strawberries shall be:

(a) of good colour;

(b) free from foreign flavour and odour;

(c) intact, if whole, and not materially disintegrated;

(d) intact, if halved, sliced or cut and not seriously affected by disintegrated fruit;

(e) clean, practically free from sand and grit and free from other foreign material;

(f) practically free from stalks, parts of stalks, calyces, leaves and other extraneous vegetable material;

(g) sound, practically free from mould, insect bites and other blemishes;

(h) normally developed;

(i) of similar varietal characteristics in each package;

(j) when presented as free-flowing, practically free from berries adhering to one another (whole, halved, sliced or cut), which cannot be easily separated by hand without damage when in a frozen state; not icy.

3.3.2 **Analytical Characteristics**

Mineral impurities such as sand shall be not more than 0.1% m/m on a whole product basis (berries and packing medium, if any).

3.4 **DEFINITION OF DEFECTS**

3.4.1	Partially uncoloured	-	25%-75% of the outer surface area without the colour characteristic of the variety
3.4.2	Completely uncoloured	-	75% or more of the other surface area without the colour characteristic of the variety
3.4.3	Disintegrated	-	broken, crushed or smashed
3.4.4	Stalks or parts of stalks	-	if each greater than 3 mm in one dimension
3.4.5	Blemished	-	showing visible signs of pest attack or pathological or physical injury
3.4.6	Misshapen	-	not normally developed and more in particular containing hard parts in the fruit flesh

3.5 **TOLERANCES FOR DEFECTS**

3.5.1 Based on a sample unit of 500 g the drained fruit ingredient of the product as defined in Section 3.5.2 (a) shall have not more than the following:

(a)	stalks or parts of stalks each greater than 3 mm in one dimension	3 by number
(b)	calyces	3 cm^2
(c)	other extraneous vegetable material	3 cm^2
(d)	completely uncoloured whole berries	1 by number
(e)	partially uncoloured whole berries	5% m/m
(f)	disintegrated whole berries	5% m/m
(g)	blemished	5% m/m
(h)	misshapen whole berries	2% m/m
(i)	dissimilar varieties	6% m/m

3.5.2 **Drained Fruit Ingredient**

(a) The drained fruit ingredient is determined by thawing the product until it is practically free from ice crystals and then draining on a screen "3 mesh/cm" (8 mesh/inch) for two minutes. The weight of fruit retained on the screen is "drained fruit ingredient". Any of the material described in Sections 3.5.1(a), (b) or (c) found in the drained syrup shall be added to the drained fruit ingredient for the purpose of applying the tolerances.

(b) When dry sugar has been added to whole berries after freezing, the dry sugar shall be washed off with water before draining.

3.6 **TOLERANCES FOR SIZES OF WHOLE STRAWBERRIES**

3.6.1 When presented as sized, a tolerance of 10% by number is allowed for fruit that fail to meet the requirements of Section 2.4.3(b).

3.6.2 In the case of *Fragaria grandiflora* L. whether sized or unsized, the amount of fruit having a maximum diameter of less than 15 mm (Section 2.4.3(c)) shall not exceed 5% by number.

3.7 **CLASSIFICATION OF "DEFECTIVES"**

Any sample unit] that fails to meet one or more of the following applicable requirements shall be considered as a "defective".

(a) the total soluble solids falls outside the range specified in Sections 3.2.1 or 3.2.2 as appropriate; or

(b) any one of the organoleptic and other characteristics under Section 3.3.1 are not complied with; or

(c) (i) any one of the defects listed under Section 3.5 is present in more than twice the amount of the specified tolerance for the individual defect; or

(ii) the total of defects in (e) to (i) exceeds 15% for whole strawberries; or

(iii) the total of defects in (g) and (i) exceeds 12% for halved, sliced or cut strawberries; or

(d) the tolerance for sizes of whole strawberries as listed in Section 3.6 is exceeded.

3.8 **LOT ACCEPTANCE**

A lot will be considered acceptable when the number of "defectives" as defined in Section 3.7 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5 when treated independently of each other.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2

4.1 **[FUNCTIONAL CLASS]**

INS No.	Additives Name	Maximum Level
300	Ascorbic acid, L-	Limited by GMP
330	Citric acid	

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 NET WEIGHT

The weight of the products covered by the provisions of this Standard shall be indicated in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

7.1.1 Classification of "Defectives"

A container that fails to meet the net weight declared on the label should be considered as a "defective".

7.1.2 Lot Acceptance

A lot should be considered as meeting the requirement of Section 7.1 when the number of "defectives", as defined in Section 7.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product as declared on the label shall include "strawberries" or in the case of *Fragaria vesca* L., "wild strawberries" or "alpine strawberries". The words "quick frozen" shall also appear on the label, except that the term "frozen"[1] may be applied in countries where this term is customarily used for describing the product processed in accordance with Section 2.2 of the Standard.

8.1.2 In addition, there shall appear on the label in conjunction with, or in close proximity to, the word "strawberries":

(a) the style, as appropriate: "halves", "slices" or "cut".

(b) the packing medium: "with (name of the sugar and whether as such or as the syrup)".

[1] The term "frozen" is used as an alternative to "quick frozen" in some English speaking countries.

8.1.3 If the product is produced in accordance with the other styles provision (Section 2.4.2), the label shall contain in conjunction with, or in close proximity to the name of the product, such additional words or phrases that will avoid misleading or confusing the consumer.

8.2 **Size Designation**

8.2.1 If a term designating the size of the strawberries is used;

(a) it shall be supported by a correct graphic representation on the label of the size range to which the strawberries predominantly conform; and/or

(b) by a statement of the predominant range of the maximum diameter of the strawberries in millimeters, or fractions of an inch in those countries where the English system is in general use: and/or

(c) it shall conform to the customary method of declaring size in the country in which the product is sold.

8.3 **ADDITIONAL REQUIREMENTS**

Information for keeping and thawing of the product shall be given on retail packs.

8.4 **LABELLING 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 accompanied by the words “quick frozen” (the term “frozen” may be used in accordance with Section 8.1.1 of the Standard), 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.

9. **PACKAGING**

Packaging used for quick frozen vegetables shall be in accordance with the relevant provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

10. **METHODS OF ANALYSIS AND SAMPLING**

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR QUICK FROZEN RASPBERRIES

CODEX STAN 69-1981

1. SCOPE

This Standard shall apply to quick frozen raspberries of the species *Rubus idaeus* L. as defined in Section 2 below and offered for direct consumption including for catering purposes without further processing, except for size-grading or re-packing if required. It does not apply to the product when indicated as intended for further processing or for other industrial purposes.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Quick frozen raspberries are the product prepared from fresh, clean, sound, ripe and stemmed raspberries of firm texture conforming to the characteristics of *Rubus idaeus* L. (red, yellow or black varieties).

2.2 PROCESS DEFINITION

Quick frozen vegetable is the product subject to a freezing process in appropriate equipment and complying with the conditions laid down hereafter and in the corresponding Annexes. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick freezing process shall not be regarded as complete unless and until the product temperature has reached -18°C (0°F) at the thermal centre after thermal stabilization. The recognized practice of repacking quick frozen products under temperature controlled conditions is permitted.

2.3 HANDLING PRACTICE

The product shall be handled under such conditions as will maintain the quality during transportation, storage and distribution up to and including the time of final sale. It is recommended that during storage, transportation, distribution and retail, the product be handled in accordance with the provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

2.4 STYLE

Quick frozen raspberries may be presented as free-flowing (i.e. as individual berries not adhering to one another) or non free-flowing (i.e. as a solid block).

2.4.2 Other Styles

Any other presentation of the product shall 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; and

(c) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Raspberries as defined in Section 2.1.

3.1.2 Other Ingredients

Sugars (sucrose, invert sugar, invert sugar syrup, dextrose, fructose, glucose syrup, dried glucose syrup) as defined in the *Standard for Sugars* (CODEX STAN 212-1999).

3.2 OTHER COMPOSITION

3.2.1 Raspberries prepared with dry sugars

The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 35% m/m nor less than 18% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.2.2 **Raspberries prepared with syrup**

The amount of syrup used shall be not more than that required to cover the berries and fill the spaces between them. The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 30% nor less than 15% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.3 **QUALITY FACTORS**

3.3.1 **General Requirements**

Quick frozen raspberries shall be:

(a) of good, reasonably uniform colour, characteristic of the variety;

(b) clean, sound and practically free from foreign matter;

(c) free from foreign flavour and odour;

and with respect to visual or other defects with a tolerance shall be:

(d) practically free from sand and grit;

(e) when presented as free-flowing, practically free from berries adhering one to another and which cannot be easily separated when in the frozen state;

(f) reasonably free from uncoloured berries;

(g) practically free from completely uncoloured berries;

(h) reasonably free from stalks (cap stems);

(i) practically free from extraneous vegetable matter;

(j) reasonably free from damage or blemish due to pathological injury or pests;

(k) normally developed;

(l) of similar varietal characteristics;

(m) reasonably free from disintegrated berries or berries not intact.

3.3.2 **Analytical Characteristics**

Mineral impurities shall be not more than 0.05% m/m on a whole product basis (berries and packing medium, if any).

3.3.3 **Free-flowing Characteristics**

(a) When presented as “free-flowing” a tolerance of 10% m/m shall be allowed for berries which adhere to one another and not easily separated in the frozen state.

(b) The sample unit for the determination of the requirement for “free-flowing” is the entire contents of the container or as large a quantity as practicable.

3.3.4 **Definition of Visual Defects**

(a) ***Partially uncoloured berries*** - 25 to 75% of the surface area without the colour characteristic of the variety;

(b) ***Completely uncoloured berries*** - 75% or more of the surface area without the colour characteristic of the variety;

(c) ***Stalks (cap stems)*** - a stalk or portions of stalk, either loose or attached to the berry, and greater than 3 mm in length;

(d) ***Extraneous vegetable matter (E.V.M.)*** - calyces or portion of calyces, leaves or other harmless extraneous vegetable material;

(e) ***Blemished*** - any damage whether due to pathological injury or pests which materially affect the appearance of the berry;

(i) Minor blemishes are those that do not exceed the area of a circle having a diameter of 5 mm.

(ii) Major blemishes are those that exceed the area of a circle having a diameter of 5 mm.

(f) ***Not normally developed*** - berries containing shrivelled parts in the fruit fresh (drupelets);

(g) ***Dissimilar varieties*** - berries that are significantly different in colour or shape due to varietal characteristics;

(h) ***Disintegrated or not intact*** - berries in which more than 25% of the berry is missing or berries which are crushed, broken or smashed into small pieces or flattened into a pulpy mass.

3.3.5 **Standard Sample Size**

The sample unit for segregating and evaluating visual deffects, including application of tolerances, shall be 300 grammes of drained berries.

3.3.6 **Tolerances**

Based upon examination of the standard sample unit as specified in Section 3.3.5, visual defects are assigned points in accordance with Table 1. The sample unit shall not exceed the "Total Allowable Points" for the respective categories, including the combined **total**, in Table 1.

TABLE 1

(Sample Unit - 300 grammes drained berries)

Defect	Unit of Measurement	Defect Categories			
		Minor	Major	Serious	Total
(a) Partially uncoloured berries	Each berry	1			
(b) Completely uncoloured berries	Each berry			4	
(c) Stalks (cap stems)	Each piece		2		
(d) E.V.M.	Each cm^2		2		
(e) Blemished					
Minor	Each berry	1			
Major	Each berry		2		
(f) Not normally developed	Each berry	1			
(g) Dissimilar varieties	Each berry		2		
TOTAL ALLOWABLE POINTS		15	10	4	20
(h) Disintegrated or not intact	Maximum of 35% m/m				

3.4 **DEFINITION OF "DEFECTIVE"**

Any sample unit that fails to meet one or more of the following applicable requirements shall be considered as a "defective".

(a) the total soluble solids falls outside the limits specified in Sections 3.2.1 and 3.2.2 provided it does not exceed the limits of the range by more than 5% m/m soluble solids.

(b) the tolerance for mineral impurities is exceeded (Section 3.3.2);

(c) the tolerance for "free-flowing" is exceeded (Section 3.3.3);

(d) the total allowable points for visual defects in any one or more of the categories in Table 1 is exceeded (Section 3.3.6);

(e) the tolerance for "disintegrated" in Table 1 is exceeded (Section 3.3.6).

3.5 **LOT ACCEPTANCE**

A lot will be considered acceptable when the number of "defectives" as defined in Section 3.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

In applying the lot acceptance procedure, each "defective" for "free-flowing" is treated individually and in addition to the allowance for other product characteristics.

4. FOOD ADDITIVES

None permitted.

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 NET WEIGHT

The weight of the products covered by the provisions of this Standard shall be indicated in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

7.1.1 Classification of "Defectives"

A container that fails to meet the net weight declared on the label shall be considered as a "defective".

7.1.2 Lot Acceptance

A lot shall be considered as meeting the requirement of Section 7.1 when the number of "defectives", as defined in Section 7.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product as declared on the label shall include "raspberries". The words "quick frozen" shall also appear on the label, except that the term "frozen" [1] may be applied in countries where this term is customarily used for describing the product processed in accordance with Section 2.2 of the Standard.

8.1.2 In addition, there shall appear on the label in conjunction with or in close proximity to the word "raspberries": (a) a reference to the colour for varieties other than the red variety: (b) the packing medium "with (name of sugar and whether as such or as the syrup)".

8.2 ADDITIONAL REQUIREMENTS

The packages shall bear clear directions for keeping from the time they are purchased from the retailer to the time of their use, as well as directions for thawing.

8.3 LABELLING 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 accompanied by the words "quick frozen" (the term "frozen" may be used in accordance with Section 8.1.1 of the Standard), 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.

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[1] The term "frozen" is used as an alternative to "quick frozen" in some English speaking countries.

9. PACKAGING

Packaging used for quick frozen vegetables shall be in accordance with the relevant provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

10. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR QUICK FROZEN BILBERRIES

CODEX STAN 76-1981

1. SCOPE

This Standard shall apply to quick frozen bilberries of the species *Vaccinium myrtillus* L. as defined in Section 2 below and offered for direct consumption including for catering purposes without further processing, except for size-grading or re-packing if required. It does not apply to the product when indicated as intended for further processing or for other industrial purposes.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Quick frozen bilberries is the product prepared from fresh, clean, sound, ripe bilberries of firm texture conforming to the characteristics of *Vaccinium myrtillus* L. with or without a dry sugar or a syrup and is packaged and frozen in an appropriate manner.

2.2 PROCESS DEFINITION

Quick frozen vegetable is the product subject to a freezing process in appropriate equipment and complying with the conditions laid down hereafter and in the corresponding Annexes. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick freezing process shall not be regarded as complete unless and until the product temperature has reached -18°C (0°F) at the thermal centre after thermal stabilization. The recognized practice of repacking quick frozen products under temperature controlled conditions is permitted.

2.3 HANDLING PRACTICE

The product shall be handled under such conditions as will maintain the quality during transportation, storage and distribution up to and including the time of final sale. It is recommended that during storage, transportation, distribution and retail, the product be handled in accordance with the provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

2.4 STYLE

Quick frozen bilberries may be presented as free-flowing (i.e. as individual berries not adhering to one another) or non-free flowing (i.e. as a solid block).

2.4.2 Other Styles

Any other presentation of the product shall 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; and

(c) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Bilberries as defined in Section 2.1.

3.1.2 Other Ingredients

Sugars (sucrose, invert sugar, invert sugar syrup, dextrose, fructose, glucose syrup, dried glucose syrup) as defined in the *Standard for Sugars* (CODEX STAN 212-1999).

3.2 OTHER COMPOSITION

3.2.1 Bilberries prepared with dry sugars

The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 35% m/m nor less than 18% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.2.2 **Bilberries prepared with syrup**

The amount of syrup used shall be not more than that required to cover the berries and fill the spaces between them. The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 25% nor less than 15% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.3 **QUALITY FACTORS**

3.3.1 **General Requirements**

Quick frozen bilberries shall be:

(a) of similar varietal characteristics;

(b) of good colour;

(c) free from foreign flavour and odour;

(d) clean, sound and practically free from mould and other harmless foreign matter;

and with respect to visual or other defects subject to a tolerance, shall be:

(e) practically free from sand and grit;

(f) when presented as free-flowing, practically free from berries adhering one to another and which cannot be easily separated by hand without damage when in the frozen state;

(g) practically free from extraneous vegetable matter (E.V.M.);

(h) reasonably free from cap stems (stalks);

(i) practically free from green berries;

(j) practically free from dissimilar varieties of edible berries other than bilberries;

(k) reasonably free from blemished berries;

(l) reasonably free from undeveloped or mummified berries.

3.3.2 **Analytical Characteristics**

Mineral impurities such as sand, grit and silt shall be not more than 0.05% m/m on the whole product (berries and packing medium, if any).

3.3.3 **Free-flowing Characteristics**

(a) When presented as “free-flowing” a tolerance of 10% m/m shall be allowed for berries which adhere to one another and not easily separated in the frozen state.

(b) The sample unit for the determination of “free flowing” is the entire contents of the container or as large a quantity as practicable.

3.3.4 **Definition of Visual Defects**

(a) ***Extraneous Vegetable Matter (E.V.M.)*** - means leaves or portions of the bilberry plant, or other similar vegetable material which is harmless;

(b) ***Cap Stems (Stalks)*** - means the immediate stem that attaches the bilberry to the plant, whether or not attached to the berry, and which is 2 mm, or greater in length;

(c) ***Green Berries*** - means completely uncoloured berries or berries that have a green cast that predominates over the normal reddish purple colour of bilberries;

(d) ***Dissimilar Varieties*** - means other edible berries that are distinctly different in colour or shape, which have definitely different internal characteristics than bilberries;

(e) ***Blemished*** - means bilberries which show visible signs of damage by insects or by pathological injury;

(f) ***Undeveloped or Mummified*** - means berries that are badly shrivelled, dried, or hard.

3.3.5 **Standard Sample Size**

The sample unit for evaluating visual effects, including application of tolerances, shall be 300 grammes of drained berries.

3.3.6 **Tolerances**

Based upon examination of the standard sample unit as specified in Section 3.3.5, visual defects are assigned points in accordance with Table 1. The sample unit shall not exceed the "Total Allowable Points" for the respective categories, including the combined **total**, in Table 1.

TABLE 1

(Sample Unit 300 grammes)

Defect	Unit of Measurement	Defect Categories		
		Minor	Major	Total
(a) E.V.M.	Each piece			
	< 1 cm²	1		
	Each piece			
	1 cm² and larger		2	
(b) Cap stems (stalks)	Each stem	1		
(c) Green berries	Each berry		2	
(d) Dissimilar varieties	Each berry		2	
(e) Blemished				
slightly	Each berry	1		
materially	Each berry		2	
(f) Undeveloped or mummified	Each berry		2	
TOTAL ALLOWABLE POINTS		20	10	20
Disintegrated, badly crushed or smashed 10% m/m				

3.4 **DEFINITION OF "DEFECTIVE"**

Any sample unit that fails to meet one or more of the following applicable requirements shall be considered as a "defective".

(a) the total soluble solids falls outside the limits specified in Sections 3.2.1 and 3.2.2 provided it does not exceed the limits of the range by more than 5% m/m soluble solids

(b) the tolerance for mineral impurities in Section 3.3.2 is exceeded;

(c) the tolerance for "free-flowing" in Section 3.3.3 is exceeded;

(d) the total allowable points for visual defects in any one or more of the categories in Table 1 (Section 3.3.6) are exceeded or the tolerance for disintegrated, badly crushed or smashed in Table 1 (Section 3.3.6) is exceeded.

3.5 **LOT ACCEPTANCE**

A lot will be considered acceptable when the number of "defectives" as defined in Section 3.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

In applying the lot acceptance procedure, each "defective" for "free-flowing" is treated individually and in addition to the allowance for other product characteristics.

4. **FOOD ADDITIVES**

None permitted.

5. **CONTAMINANTS**

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. **HYGIENE**

6.1 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), the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 NET WEIGHT

The weight of the products covered by the provisions of this Standard shall be indicated in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

7.1.1 Classification of "Defectives"

A container that fails to meet the net weight declared on the label shall be considered as a "defective".

7.1.2 Lot Acceptance

A lot shall be considered as meeting the requirement of Section 7.1 when the number of "defectives", as defined in Section 7.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product as declared on the label is "bilberries". The words "quick frozen" shall also appear on the label, except that the term "frozen" [1] may be applied in countries where this term is customarily used for describing the product processed in accordance with Section 2.2 of the Standard.

8.1.2 In addition, there shall appear on the label in conjunction with or in close proximity to the word "bilberries", the packing medium: "with (name of sugar and whether as such or as the syrup)".

8.2 ADDITIONAL REQUIREMENTS

The packages shall bear clear directions for keeping from the time they are purchased from the retailer to the time of their use, as well as directions for thawing.

8.3 LABELLING 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 accompanied by the words "quick frozen" (the term "frozen" may be used in accordance with Section 8.1.1 of the Standard), 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.

9. PACKAGING

Packaging used for quick frozen vegetables shall be in accordance with the relevant provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

10. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

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[1] The term "frozen" is used as an alternative to "quick frozen" in some English speaking countries.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR QUICK FROZEN BLUEBERRIES

CODEX STAN 103-1981

1. SCOPE

This Standard shall apply to quick frozen blueberries of the species *Vaccinium corymbosum* L.[1] [2], *Vaccinium angustifolium* AIT.[3] and *Vaccinium ashei* READE,[4] as defined in Section 2 below and offered for direct consumption including for catering purposes without further processing, except for size-grading or re-packing if required. It does not apply to the product when indicated as intended for further processing or for other industrial purposes, nor to the bilberries[5] as covered by the *Standard for Quick Frozen Bilberries* (CODEX STAN 76-1981).

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Quick frozen blueberries are the product prepared from fresh, clean, sound, ripe and stemmed blueberries of firm texture, conforming to the characteristics of *Vaccinium corymbosum* L.[2] [3] *Vaccinium angustifolium* AIT. and *Vaccinium ashei* READE, and which are packed with or without a dry sugar or a sugar syrup and frozen in an appropriate manner.

2.2 PROCESS DEFINITION

Quick frozen vegetable is the product subject to a freezing process in appropriate equipment and complying with the conditions laid down hereafter and in the corresponding Annexes. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick freezing process shall not be regarded as complete unless and until the product temperature has reached -18°C (0°F) at the thermal centre after thermal stabilization. The recognized practice of repacking quick frozen products under temperature controlled conditions is permitted.

2.3 HANDLING PRACTICE

The product shall be handled under such conditions as will maintain the quality during transportation, storage and distribution up to and including the time of final sale. It is recommended that during storage, transportation, distribution and retail, the product be handled in accordance with the provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

2.4 STYLE

Quick frozen blueberries may be presented as free-flowing (i.e. as individual berries not adhering to one another) or non-free flowing (i.e. as a solid block).

2.4.2 Other Styles

Any other presentation of the product shall 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; and

(c) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Blueberries as defined in Section 2.1.

3.1.2 Other Ingredients

Sugars (sucrose, invert sugar, invert sugar syrup, dextrose, fructose, glucose syrup, dried glucose syrup) as defined in the *Standard for Sugars* (CODEX STAN 212-1999).

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1 There appear to be many natural hybrids of *Vaccinium corymbosum* L. and other (wild) species of the genus *Vaccinium* rendering the taxonomy very difficult.

2 Common name: Highbush blueberry

3 Common name: Lowbush blueberry

4 Common name: Rabbiteye blueberry

5 *Vaccinium myrtillus* L.

3.2 **OTHER COMPOSITION**

3.2.1 **Blueberries prepared with dry sugars**

The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 35% m/m nor less than 18% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.2.2 **Blueberries prepared with syrup**

The amount of syrup used shall be not more than that required to cover the berries and fill the spaces between them. The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 25% nor less than 15% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.3 **QUALITY FACTORS**

3.3.1 **General Requirements**

Quick frozen blueberries shall be:

(a) of similar varietal characteristics;

(b) of good colour;

(c) free from foreign flavour and odour;

(d) clean, sound and practically free from mould and other harmless foreign matter;

and with respect to visual defects or other defects subject to a tolerance, shall be:

(e) practically free from sand and grit;

(f) when presented as free-flowing, practically free from berries adhering one to another and which cannot be easily separated by hand without damage when in the frozen state;

(g) practically free from extraneous vegetable material (E.V.M.);

(h) reasonably free from cap stems (stalks);

(i) practically free from unripe berries;

(j) practically free from dissimilar varieties of edible berries other than blueberries;

(k) reasonably free from blemished berries;

(l) reasonably free from undeveloped or mummified berries.

3.3.2 **Analytical Characteristics**

Mineral impurities such as sand, grit and silt shall be not more than 0.04% m/m on a whole product basis (berries and packing medium, if any).

3.3.3 **Free-flowing Characteristics**

(c) When presented as “free-flowing” a tolerance of 10% m/m shall be allowed for berries which adhere to one another and not easily separated in the frozen state.

(d) The sample unit for the determination of “free-flowing” is the entire contents of the container or as large a quantity as practicable.

3.3.4 **Visual Defects**

3.3.4.1 ***Definitions***

(a) ***Extraneous Vegetable Material (E.V.M.)*** - means leaves or portions of the blueberry plant, or other similar vegetable material which is harmless;

(b) ***Cap Stems (Stalks)*** - means the immediate stem that attaches the blueberry to the plant, whether or not attached to the berry, and which is 2 mm, or greater in length;

(c) ***Unripe Berries*** - means completely green berries or berries that have a green cast that predominates over the normal reddish purple colour of blueberries;

(d) ***Dissimilar Varieties*** - means other edible berries that are distinctly different in colour or shape, which have definitely different internal characteristics than blueberries;

(e) ***Blemished*** - means blueberries which show visible signs of damage by insects or by pathological or mechanical injury;

(f) ***Undeveloped or Mummified*** - means berries that are badly shrivelled, dried or hard.

3.3.4.2 ***Standard Sample Size***

The sample unit for evaluating visual effects, including application of tolerances, shall be 300 grammes of drained berries.

3.3.4.3 ***Tolerances***

Based upon examination of the standard sample unit as specified in Section 3.3.4.2, visual defects shall be assigned points in accordance with Table 1. The sample unit shall not exceed the "Total Allowable Points" for the respective categories, including the combined **total**, in Table 1.

TABLE 1

(Sample Size 300 grammes)

Defect	Unit of Measurement	Defect Categories		
		Minor	Major	Total
(a) E.V.M.	Each piece 1 cm^2	1		
	Each piece 1 cm^2 and larger		2	
(b) Cap Stems	Each stem	1		
(c) Unripe Berries	Each berry		2	
(d) Dissimilar Varieties	Each berry		2	
(e) Blemished				
Slightly	Each berry	1		
Materially	Each berry		2	
(f) Undeveloped or Mummified	Each berry		2	
TOTAL ALLOWABLE POINTS		15	8	15
Disintegrated, Badly Crushed or Smashed ------- 10% m/m				

3.4 **DEFINITION OF "DEFECTIVE"**

Any sample unit that fails to meet one or more of the following applicable requirements shall be considered as a "defective".

(e) the total soluble solids falls outside the limits specified in Sections 3.2.1 and 3.2.2 provided it does not exceed the limits of the range by more than 5% m/m soluble solids

(f) the tolerance for mineral impurities in Section 3.3.2 is exceeded;

(g) the tolerance for "free-flowing" in Section 3.3.3 is exceeded;

(h) the total allowable points for visual defects in any one or more of the categories in Table 1 (Section 3.3.4.3) are exceeded or the tolerance for disintegrated, badly crushed or smashed in Table 1 (Section 3.3.4.3) is exceeded.

3.5 **LOT ACCEPTANCE**

A lot will be considered acceptable when the number of "defectives" as defined in Section 3.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

In applying the lot acceptance procedure, each "defective" for "free-flowing" is treated individually and in addition to the allowance for other product characteristics.

4. **FOOD ADDITIVES**

None permitted.

5. **CONTAMINANTS**

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. **HYGIENE**

6.1 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), the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 NET WEIGHT

The weight of the products covered by the provisions of this Standard shall be indicated in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

7.1.1 Classification of "Defectives"

A container that fails to meet the net weight declared on the label shall be considered as a "defective".

7.1.2 Lot Acceptance

A lot shall be considered as meeting the requirement of Section 7.1 when the number of "defectives", as defined in Section 7.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

6. LABELLING

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

6.1 NAME OF THE PRODUCT

6.1.1 The name of the product as declared on the label shall include "blueberries". The words "quick frozen" shall also appear on the label, except that the term "frozen"[6] may be applied in countries where this term is customarily used for describing the product processed in accordance with Section 2.2 of the Standard.

6.1.2 In addition, there shall appear on the label in conjunction with or in close proximity to the word "blueberries", the packing medium: "with (name of sugar and whether as such or as the syrup)".

6.2 ADDITIONAL REQUIREMENTS

The packages shall bear clear directions for keeping from the time they are purchased from the retailer to the time of their use, as well as directions for thawing.

8.3 LABELLING 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 accompanied by the words "quick frozen" (the term "frozen" may be used in accordance with Section 8.1.1 of the Standard), 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.

7. PACKAGING

Packaging used for quick frozen vegetables shall be in accordance with the relevant provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

10. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

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6 The term "frozen" is used as an alternative to "quick frozen" in some English speaking countries.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number ©**
4,800 or less	6	1
4,801 – 24,000	13	2
24,001 – 48,000	21	3
48,001 – 84,000	29	4
84,001 – 144,000	38	5
144,001 – 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number ©**
2,400 or less	6	1
2,401 – 15,000	13	2
15,001 – 24,000	21	3
24,001 – 42,000	29	4
42,001 – 72,000	38	5
72,001 – 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number ©**
600 or less	6	1
601 – 2,000	13	2
2,001 – 7,200	21	3
7,201 – 15,000	29	4
15,001 – 24,000	38	5
24,001 – 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number ©**
4,800 or less	13	2
4,801 – 24,000	21	3
24,001 – 48,000	29	4
48,001 – 84,000	38	5
84,001 – 144,000	48	6
144,001 – 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number ©**
2,400 or less	13	2
2,401 – 15,000	21	3
15,001 – 24,000	29	4
24,001 – 42,000	38	5
42,001 – 72,000	48	6
72,001 – 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number ©**
600 or less	13	2
601 – 2,000	21	3
2,001 – 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR QUICK FROZEN PEACHES

CODEX STAN 75-1981

1. SCOPE

This Standard shall apply to quick frozen peaches of the species as defined in Section 2 below and offered for direct consumption including for catering purposes without further processing, except for size-grading or re-packing if required. It does not apply to the product when indicated as intended for further processing or for other industrial purposes.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Quick frozen peaches is the product prepared from fresh, sound, properly ripened fruit conforming to the characteristics of *Prunus persica* L., but excluding nectarine varieties, which fruit is packed with or without a dry sugar of a syrup and is packaged.

2.2 PROCESS DEFINITION

Quick frozen vegetable is the product subject to a freezing process in appropriate equipment and complying with the conditions laid down hereafter and in the corresponding Annexes. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick freezing process shall not be regarded as complete unless and until the product temperature has reached -18°C (0°F) at the thermal centre after thermal stabilization. The recognized practice of repacking quick frozen products under temperature controlled conditions is permitted.

2.3 HANDLING PRACTICE

The product shall be handled under such conditions as will maintain the quality during transportation, storage and distribution up to and including the time of final sale. It is recommended that during storage, transportation, distribution and retail, the product be handled in accordance with the provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

2.4 PRESENTATION

2.4.1 Varietal Type

Peaches of distinct varietal types shall be designated:

(a) “Freestone” - where the pit separates readily from the flesh; or

(b) “Clingstone” - where the pit adheres to the flesh

2.4.2 Colour Type

Peaches of distinct varietal differences shall be designated according to the colour of the ripe flesh.

(a) ***white*** - varietal types in which the predominant colour ranges from white to yellow-white;

(b) ***yellow*** - varietal types in which the predominant colour ranges from pale yellow to light orange;

(c) ***red*** - varietal types in which the colour ranges from orange red to red with more or less pronounced variegated red colouring other than that associated with the pit cavity;

(d) ***green*** - varietal types in which the predominant colour is light green but which are fully mature and properly ripened.

2.4.3 Style

Quick frozen peaches shall be presented in the following styles:

(a) ***whole*** - unpitted whole peaches;

(b) ***halves*** - pitted and cut into two approximately equal parts;

(c) ***quarters*** - pitted and cut into four approximately equal parts following the longitudinal axis;

(d) ***sliced*** - pitted and cut into wedge shaped sectors of approximately equal size;

(e) ***pieces*** - (regular or irregular) - pitted and comprising regular or irregular shapes and sizes;

(f) ***diced*** - pitted and cut into cube-like parts having a maximum size of 15 mm long on one edge.

2.4.4 **Other Styles**

Any other presentation of the product shall 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; and

(c) is adequately described on the label to avoid confusing or misleading the consumer.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Peaches as defined in Section 2.1.

3.1.2 Other Ingredients

Sugars (sucrose, invert sugar, dextrose, fructose, glucose syrup, dried glucose syrup) as defined in the *Standard for Sugars* (CODEX STAN 212-1999).

3.2 OTHER COMPOSITION

3.2.1 Peaches prepared with dry sugars

The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 35% m/m nor less than 18% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.2.2 Peaches prepared with syrup

The amount of syrup used shall be not more than that required to cover the berries and fill the spaces between them. The total soluble solids content of the liquid extracted from the thawed, comminuted sample shall be not more than 30% nor less than 15% m/m, expressed as sucrose, as determined by refractometer at 20°C.

3.3 QUALITY FACTORS

3.3.1 General Requirements

Quick frozen peaches shall be:

(a) clean and practically free from foreign material;

(b) free from foreign flavour and odour;

(c) of similar varietal characteristics;

(d) of good, reasonably uniform colour characteristic of the varietal type.

and with respect to visual or other defects subject to a tolerance, shall be:

(e) practically free from dark discolouration or green areas (except for green in green types);

(f) practically free from blemished units;

(g) practically free from stalks (stems), or portions thereof, or other extraneous vegetable matter (E.V.M.);

(h) practically intact units for the style and may be materially altered in shape due to excess trimming or mechanical damage;

(i) reasonably free from fibrous units;

(j) reasonably free from overripe, mushy or disintegrated fruit;

(k) reasonably free from peel;

(l) free from whole pits (stones) except in whole style;

(m) practically free from pit fragments.

3.3.2 Definition of Visual Defects

(a) ***Discolouration*** - discolouration due to oxidation or bruising and which materially detracts from the appearance of the product;

(b) ***Blemish*** - units affected by insect injury or scab pathological damage or other similar means;

(c) ***Stalks (stems)*** - the immediate stalk which attaches the peach to the branch of the peach tree;

(d) ***Extraneous Vegetable Matter (E.V.M.)*** - harmless vegetable material such as pieces of leaf;

(e) ***Excess trim and mechanical damage*** - units gouged or severely trimmed such that the apparent appearance and shape of the unit is materially altered;

(f) ***Fibrous units*** - units with tough fibres that are objectionable when eaten;

(g) ***Overripe or mushy*** - units that are excessively soft or disintegrated to the extent that they have lost their normal shape;

(h) ***Pit fragments*** - pieces of pit which are hard and sharp and are at least 3 mm in any dimension.

3.3.3 **Standard Sample Sizes**

The sample unit for segregating, classifying and enumerating visual effects, including application of tolerances, shall be as follows:

Style	**Standard Sample Size**
Whole	20 units (whole fruits)
Halved and Quartered	30 units (halves and quarters)
Sliced, Diced, Pieces	300 grammes

The above sample units are made up of drained fruit.

3.3.4 **Tolerances for Defects**

Based upon examination of the standard sample unit as specified in Section 3.3.3, visual defects are assigned points in accordance with Table 1. The sample unit shall not exceed the "Total Allowable Points" for the respective categories, including the combined **total**, in Table 1.

TABLE 1
Whole Style (20 units)

Defect	Unit of Measurement	Defect Categories			
		Minor	Major	Serious	Total
(a) Discolouration or green	Each 4 cm²	1			
(b) Blemish	Each 0.5 cm² to 1 cm²	1			
	> 1 cm²		2		
	Very dark, penetrating the flesh			4	
(c) Stalks (stems), E.V.M.	Each piece		2		
(d) Excess trim and mechanical damage	Each unit		2		
(e) Fibrous unit	Each unit		2		
(f) Overripe, mushy	Each unit		2		
(g) Peel	Each 1 cm²	1			
TOTAL ALLOWABLE POINTS		25	8	4	25

TABLE 2
Halved and Quartered Styles (30 units)

Defect	Unit of Measurement	Defect Categories			
		Minor	Major	Serious	Total
(a) Discolouration or green	Each 4 cm²	1			
(b) Blemish	Each 0.5 cm² to 1 cm²	1			
	> 1 cm²		2		
	Very dark, penetrating the flesh			4	
(c) Stalks (stems), E.V.M.	Each piece		2		
(d) Excess trim and mechanical damage	Each unit		2		
(e) Overripe, mushy	Each unit	1			
(f) Fibrous units	Each unit		2		
(g) Peel	Each 1 cm²	1			
(h) Pit fragments	Each piece		2		
TOTAL ALLOWABLE POINTS		25	8	4	25
(i) Whole pits (stones) 1 per 3 kgs					

TABLE 3
Sliced, Diced, Pieces, Styles (300 g drained fruit)

Defect	Unit of Measurement	Defect Categories			
		Minor	Major	Serious	Total
(a) Discolouration or green	Each 4 cm²	1			
(b) Blemish	up to 1 cm²	1			
	> 1 cm²		2		
	Very dark, penetrating the flesh			4	
(c) Stalks (stems), other E.V.M.	Each piece		2		
(d) Excess trim	Each unit	1			
(e) Overripe, mushy	Each 5 g	1			
(f) Fibrous	Each unit		2		
(g) Peel	Each cm²	1			
(h) Pit fragments	Each piece		2		
TOTAL ALLOWABLE POINTS		25	6	4	25
(i) Whole pits (stones)	1 per 3 kgs				

3.4 **DEFINITION OF "DEFECTIVE"**

Any sample unit that fails to meet one or more of the following applicable requirements should be considered as a "defective".

(a) the total soluble solids falls outside the limits specified in Sections 3.2.1 and 3.2 provided it does not exceed the limits of the range by more than 5% m/m soluble solids

(b) the general requirements in Section 3.3.1 are exceeded;

(c) the total allowable points for visual defects in any one or more of the categories in Tables 1, 2 and 3 are exceeded or the total allowable points for the combined **total** of the respective defect categories is exceeded as indicated in Section 3.3.4.

3.5 **Lot Acceptance**

A lot will be considered acceptable when the number of "defectives" as defined in Section 3.4 does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5, provided that, with respect to all styles except "whole", the number of whole pits (stones) does not exceed the tolerance on a sample average basis.

4. FOOD ADDITIVES

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2

4.1 [FUNCTIONAL CLASS]

INS No.	Additives Name	Maximum Level
300	Ascorbic acid, L-	750 mg/kg
330	Citric acid	Limited by GMP

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 NET WEIGHT

The weight of the products covered by the provisions of this Standard shall be indicated in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

7.1.1 Classification of "Defectives"

A container that fails to meet the net weight declared on the label should be considered as a "defective".

7.1.2 Lot Acceptance

A lot should be considered as meeting the requirement of Section 7.1 when the number of "defectives", as defined in Section 7.1.1, does not exceed the acceptance number (c) of the appropriate sampling plan with an AQL of 6.5.

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product as declared on the label shall include the designation "peaches".

8.1.2 The words "quick frozen" shall also appear on the label, except that the term "frozen"[1] may be applied in countries where this term is customarily used for describing the product processed in accordance with Section 2.2 of the Standard.

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[1] The term "frozen" is used as an alternative to "quick frozen" in some English speaking countries.

6.1.3 In addition, there shall appear on the label in conjunction with or in close proximity to the word "peaches":

(a) the style, as appropriate: "whole", "halves", "quarters", "slices", "pieces" or "diced";

(b) the packing medium: "with (name of the sugar and whether as such or as the syrup)";

6.1.4 If the product is produced in accordance with the other styles provision (Section 2.4.2), the label shall contain in conjunction with, or in close proximity to the name of the product, such additional words or phrases that will avoid misleading or confusing the consumer.

6.1.5 Peaches of distinct varietal types shall be designated: "freestone" or "clingstone", as appropriate (see Section 2.4.1).

6.1.6 The colour type of the flesh of the peaches shall be declared either by illustration or by nomenclature.

6.2 **ADDITIONAL REQUIREMENTS**

The packages shall bear clear directions for keeping from the time they are purchased from the retailer to the time of their use, as well as directions for thawing.

8.3 **LABELLING 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 accompanied by the words "quick frozen" (the term "frozen" may be used in accordance with Section 8.1.1 of the Standard), 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.

7. **PACKAGING**

Packaging used for quick frozen vegetables shall be in accordance with the relevant provisions of the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976).

10. **METHODS OF ANALYSIS AND SAMPLING**

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2

(Inspection Level II, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

STANDARD FOR RAISINS

CODEX STAN 67-1981

1. SCOPE

This Standard applies to dried grapes of varieties conforming to the characteristics of *Vitis vinifera* L. which have been suitably treated or processed and which are offered for direct consumption as raisins or sultanas. It also covers raisins packed in bulk containers and which are intended for repacking into consumer size containers or for direct sale to consumers. This Standard does not include a similar dried vine fruit known as dried currants.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Raisins is the product prepared from the sound dried grapes of the varieties conforming to the characteristics of *Vitis vinifera* L. (but excluding currant types) processed in an appropriate manner into a form of marketable raisin with or without coating with suitable optional ingredients.

The dried grapes or raisins:

(1) shall be properly cleaned, whether washed or unwashed;

(2) shall be stemmed except for the form of cluster raisins;

(3) shall be cap-stemmed except for Malaga Muscatel type;

(4) may be dipped (unbleached) in an alkaline lye and oil solution as an aid to drying;

(5) may be bleached by being subjected to bleach treatment by chemical means and are further processed by drying;

(6) may have seeds removed mechanically in seed bearing types;

(7) shall be reduced in moisture to a level that will assure preservation of the product; and

(8) may be coated with one or more of the ingredients or sugars specified in paragraph 3.1 of this Standard.

2.2 TYPE GROUPS

(a) ***Seedless*** - prepared from grapes that are naturally seedless or almost seedless;

(b) ***Seed-bearing*** - prepared from grapes that possess seeds, which may or may not be removed in processing.

2.3 STYLES ~~(OR FORMS)~~

(a) ***Non-Seeded (or Unseeded)*** - with seeds not removed in seed-bearing types.

(b) ***Seeded*** - with seeds removed mechanically in seed-bearing types.

(c) ***Clusters*** - with main bunch stem attached.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Dried grapes as defined in Section 2.1.

3.1.2 Other Ingredients

Raisin oil and other edible vegetable oils such as to permit free-flowing raisins, sucrose, invert sugar, dextrose, dried glucose syrup and honey, as may be appropriate to the product.

3.2 QUALITY FACTORS

3.2.1 Maturity Characteristics

Raisins shall show development characteristics of raisins prepared from properly matured grapes, as indicated by proper colour and texture for the type, and such raisins shall include a substantial portion of berries that are fleshy and of high sugar content.

3.2.2 **Minimum ~~Quality~~ Requirements**

Raisins shall be prepared from such materials and under such practices that the finished product shall possess normal colour, flavour, and maturity characteristics for the respective type and in addition comply with the following requirements:

(a)

Moisture Content	**Maximum**
Malaga Muscatel type	31%
Seeded (seeds removed) style	19%
All other styles and/or types	18%

(b) Mineral Impurities - may not be present to the extent that the eating quality or usability is materially affected (paragraph 5.2 of this Standard).

(c) Other Defects - substantially free from stems, extraneous plant material and damage.

3.2.3 **Definitions of Defects**

(a) Piece of stem - Portion of the branch or main stem.

(b) Cap-stem - Small woody stem exceeding 3 mm in length which attaches the grape to the branch of the bunch and whether or not attached to a raisin.

(Cap-stems are not considered a defect in "Unstemmed" Malaga Muscatel type raisins. In considering allowances for cap-stems on a "percentage by count" basis, cap-stems that are loose are counted as being on a raisin).

(c) Immature or Undeveloped Raisins - Refers to raisins that:

(i) are extremely light-weight berries, lacking in sugary tissue indicating incomplete development;

(ii) are completely shrivelled with practically no flesh, and

(iii) may be hard.

(d) Damaged Raisins - Raisins affected by sunburn, scars, mechanical injury, or other similar means which seriously affect the appearance, edibility, keeping quality, or shipping quality.

In "Seeded" forms, normal mechanical injury resulting from normal seeding operations is not considered "damage".

In "Seedless" type, normal mechanical injury resulting from removal of cap-stems is not considered "damage".

(e) Sugared Raisins - Raisins with external or internal sugar crystals which are readily apparent and seriously affect the appearance of the raisin. Raisins that are sugar-coated or to which sugar is added intentionally are not considered "sugared raisins".

(f) Seeds (in seeded forms) - Substantially whole, fully developed seeds which have not been successfully removed during processing of seeded forms.

3.2.4 **Allowances for Defects**

Raisins shall not contain excessive defects (whether or not specifically defined or as allowed in this Standard). Certain common defects as defined in Section 3.2.3 may not exceed the limitations specified in Section 3.2.4.

Defects	**Seedless types**	**Seed-bearing types**
	Maximum	
Pieces of stem (in stemmed forms)	2 per kg	2 per kg
Cap-stems (except in "Unstemmed" Malaga Muscatel type)	50 per 500 g	25 per 500 g
Immature or undeveloped	6% by weight	4% by weight
Damaged	5% by weight	5% by weight
Sugared	15% by weight	15% by weight
Seeds (in seeded forms)	-	20 per 500 g

4. FOOD ADDITIVES

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 [FUNCTIONAL CLASS]

INS No.	Additives Name	Maximum Level
220	Sulphur dioxide (applies to bleached raisins only)[1]	1,500 mg/kg
420(i)	Sorbitol	5 g/kg
905(a)	Mineral oil, food grade	5 g/kg

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Dried Fungi* (CAC/RCP 5-1971), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product shall be “Raisins”; or it shall be “Sultanas” in those countries where the name sultana is used to describe certain types of raisins.

8.1.2 If the raisins are bleached, part of the name shall include a meaningful term as customarily understood and used in the country of sale, such as “Bleached”, “Golden”, or “Golden Bleached”.

8.1.3 If raisins are of the seed-bearing type, the name of the product shall include, as appropriate:

(a) the description “Seeded” or “With Seeds Removed”;

(b) the description “Non-Seeded”, “Unseeded”, “With Seeds”, or similar description indicating that the raisins are naturally not seedless, except in cluster form and Malaga Muscatel type.

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[1] Maximum limit applicable immediately following treatment.

8.1.4 If raisins are in cluster form, the name of the product shall include the description “Clusters”, or a similar appropriate description.

8.1.5 If raisins intentionally do not have cap-stems removed, the name of the product shall include the description “Unstemmed” or a similar appropriate description, except in cluster form and Malaga Muscatel type.

8.1.6 Where a characteristic coating or similar treatment has been used, appropriate terms shall be included as part of the name of the product or in close proximity to the name: e.g. “Sugar Coated”, “Coated with X”.

8.2 **Optional Declarations**

8.2.1 Raisins may be described as “Natural” when they have not been subjected to dipping in an alkaline lye and oil solution as an aid to drying nor subjected to bleach treatment.

8.2.2 Raisins may be described as “Seedless” when they are of that type.

8.2.3 The product name may include the variety or varietal type group of raisins.

8.3 **LABELLING 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.

9. **METHODS OF ANALYSIS AND SAMPLING**

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

STANDARD FOR DRIED APRICOTS

CODEX STAN 130-1981

1. SCOPE

This Standard applies to dried apricots conforming to the characteristics of *Armeniaca vulgaria* Lam. (*Prunus armeniaca* L.) which have been suitably treated or processed and which are offered for direct consumption. It also covers dried apricots which are packed in bulk containers and which are intended for repacking into consumer size containers or for direct sale to consumers.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Dried apricots is the product: (a) prepared from sound ripe fruit of varieties of *Armeniaca vulgaria* Lam. (*Prunus armeniaca* L.); and (b) processed by drying either by the sun or by other recognized methods of dehydration, which may be preceded by sulphuring, into a form of marketable dried product.

2.2 VARIETAL TYPES

Any suitable variety (cultivar) of apricots may be used.

2.3 STYLES

The product shall be presented in one of the following styles:

(a) Whole, unpitted

(b) Whole, pitted

(c) Whole, pitted and stuffed with edible materials

(d) Halves

(e) Slabs - consisting of portions of sound, ripe apricots of characteristic colour, irregular in shape, size and thickness and excluding whole fruit

(f) Kamaradin - consisting of dried apricot pulp or paste prepared as a sheet or flakes.

2.4 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.

2.5 SIZE CLASSIFICATION (Optional)

Dried apricots may be designated as to size in accordance with the following table:

Designation	No. of unpitted wholes per kg	No. of pitted wholes per kg	No. of halves per kg
Very small	Over 205	241 - 500	481 - 800
Small	150 - 205	166 - 240	331 - 480
Medium	115 - 149	131 - 165	261 - 330
Large	95 - 114	100 - 130	200 - 260
Extra large	Less than 95	Less than 100	Less than 200

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Clean, sound apricots of a quality suitable for human consumption.

3.1`.2 Other Ingredients

Other edible material as may be appropriate to stuffing the product, including sugars as described in the *Standard for Sugars* (CODEX STAN 212-1999) (see sections 2.3(c) and 7.1.2(c)).

3.3 QUALITY FACTORS

3.3.1 Moisture Content

(a) **Unsulphured** dried apricots not treated with sorbic acid — not more than 20% m/m

(b) **Sulphured** and/or sorbic acid treated dried apricots — not more than 25% m/m

3.3.2 ~~Quality Factors -~~ General Requirements

(a) Colour characteristic of the variety and the type of treatment;

(b) Flavour and odour characteristic of the product;

(c) Free from damaged, broken, mouldy and immature fruit for styles 2.3(a) to (d) as described in Section 3.3.3 and subject to tolerances provided for in Section 3.4.4;

(d) Generally uniform in size within any count category, where declared;

(e) Free from living insects or mites;

(f) Mineral impurities - may not be present to the extent that the eating quality or usability is materially affected;

(g) Foreign matter - Practically free from extraneous vegetable matter, insect debris and other objectionable matter.

3.3.3 Definition of Defects

(a) ***Damaged fruit*** - fruit affected by any damage or blemish on the surface resulting from factors such as hail, etc., affecting more than 5 mm^2 of fruit surface.

(b) ***Broken fruit*** - fruit affected by any damage resulting from improper halving or other mechanical action.

(c) ***Immature fruit*** - fruit which is generally deficient in sugar and may be sour in taste.

(d) ***Insect damaged fruit*** - fruit which is affected by insect damage or containing dead insects, mites or other pests.

(e) ***Mouldy fruit*** - fruit which is affected by mould to a visible extent, or decay.

(f) ***Dirty fruit*** - fruit affected by imbedded dirt or any other foreign material.

3.3.4 Allowances for Defects

The sample unit size shall be 1 kg.

The following allowances for defects shall apply to all the styles with the exception of the “Slab” and “Kamaradin” styles:

Defect	Maximum Allowed
Slabs	10% m/m
Damaged fruit	10% m/m
Broken fruit	10% m/m
Insect damaged and dirty fruit	5% m/m
Mouldy fruit	1% m/m
TOTAL	15% m/m
Immature fruit	10% m/m

4. FOOD ADDITIVES

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

4.1 [FUNCTIONAL CLASS]

INS No.	Additives Name	Maximum Level
200	Sorbic acid and its sodium and potassium salts	500 mg/kg, singly or in combination, expressed as sorbic acid
201	Sodium sorbate	
202	Potassium sorbate	
220	Sulphur dioxide	2000 mg/kg

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Dried Fungi* (CAC/RCP 5-1971), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product in accordance with the General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985).

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product as declared on the label shall be “Dried Apricots”.

8.1.2 In addition, there shall appear on the label as part of the name or in close proximity to the name, the form of presentation as indicated below:

(a) Whole, unpitted

(b) Whole, pitted

(c) Whole, pitted, filled with..... as appropriate

(d) Halves

(e) Slabs

(f) Kamaradin

8.1.3 If the product is produced in accordance with the other styles provision (Section 2.4), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

8.2 **Optional Declarations**

8.2.1 A size classification for dried apricot halves or whole dried apricots may be stated on the label if the pack complies with the appropriate requirements of Section 2.4.

8.2.2 The variety or varietal type of the dried apricots may be stated on the label.

8.3 **LABELLING 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.

9. **METHODS OF ANALYSIS AND SAMPLING**

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

STANDARD FOR UNSHELLED PISTACHIO NUTS

CODEX STAN 131-1981

1. SCOPE

This Standard applies to unshelled pistachios from varieties of *Pistacia vera* L. either in natural or in processed condition and which are offered for direct consumption. It also covers unshelled pistachios which are packed in bulk containers and which are intended for repacking in consumer size containers or for direct sale to consumers.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Pistachios are the product obtained from mature seeds from the fruit of *Pistacia vera* L. which have been artificially sun-dried and naturally or mechanically opened. The product may be roasted, salted, and/or lime-juice treated.

2.2 VARIETAL TYPE

Varietal types are classified as:

(a) Long pistachio

(b) Round pistachio

2.3 STYLES

The product shall be presented in one of the following styles:

(a) Raw pistachio

(b) Roasted pistachio

2.4 SUB-STYLES

The product may be presented in one or more of the following sub-styles:

(a) Salted

(b) Lime-juice treated

2.5 SIZE CLASSIFICATION (Optional)

Pistachios may be designated as to size in accordance with the following Table:

Designation	No. of pistachios per 100 grams
Small	over 106
Medium	92 to 106
Large	81 to 91
Very Large	71 to 80
Extra Large	under 71

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

3.1.1 Raw Material (Basic Ingredient)

Clean, sound pistachios of a quality suitable for human consumption.

3.1.2 Other Ingredients

(a) Salt

(b) Lime-juice

3.3 FINAL PRODUCT

3.3.1 Composition - Moisture Content

Maximum moisture content 7% m/m.

3.3.2 **Quality Factors - General Requirements**

(a) Practically free from mould and mouldy or rancid taste.

(b) Free from living insects and mites.

(c) Practically free from foreign matter - anything other than pistachio (kernel, hard shell and pericarp)

3.3.3 **Definition of Defects**

(a) **Closedness (unsplit)** - pistachio shells which are not split open, but contain a fully developed kernel;

(b) **Emptiness** - the condition of pistachio in which the kernel is not developed;

(c) **Unripeness (immaturity)** - the condition of pistachio in which the kernel has not developed adequately;

(d) **Insect damaged fruit** - fruit which is affected by insect damage or containing dead insects, mites, or other pests.

(e) **Mouldy fruit** - fruit which is affected by mould to a visible extent, or decay.

3.3.4 **Allowances for Defects**

The maximum allowances by count for defects as defined in section 3.3.3 are as follows:

Category 3.3.3(a) - 5%

Category 3.3.3(b) - 5%

Category 3.3.3(c) - 8%

Category 3.3.3(d) - 4%

Category 3.3.3(e) - 1%

Total defects (a) to (e) shall not exceed 10%.

3.4 **Lot Acceptance**

A lot will be considered as meeting the quality criteria requirements of the Standard when:

(a) there is no evidence of live infestation; and

(b) the sub-sample~~, as taken in conformity with Sub-samples for Examination and Testing in Codex Alimentarius Volume 13,~~ meets the general requirements of Section 3.2.1 and does not exceed the allowances for the respective defects in Sections 3.3.1 and 3.3.2, and do not exceed the allowances for the respective defects in Section 3.3.4..

4. **FOOD ADDITIVES**

No additives are permitted.

5. **CONTAMINANTS**

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. **HYGIENE**

6.1 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), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Dried Fungi* (CAC/RCP 5-1971), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

8. LABELLING

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

8.1 NAME OF THE PRODUCT

8.1.1 The name of the product as declared on the label shall be “unshelled pistachio”, “unshelled pistachio nuts” or “inshell pistachio nuts”.

8.1.2 In addition, there shall appear on the label as part of the name or in close proximity to the name the form of presentation as indicated below:

(a) Raw

(b) Roasted

8.1.3 The name of the product may include the varietal types as “long” or “round”, and the sub-style as “salted”, or “lime-juice treated” and the size designation as “small”, “medium”, “large”, “very large” or “extra large”.

8.2 LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

STANDARD FOR DATES

CODEX STAN 143-1985

1. SCOPE

This Standard applies to commercially prepared whole dates in pitted or un-pitted styles packed ready for direct consumption. It does not apply to other forms such as pieces or mashed dates or dates intended for industrial purposes.

2. DESCRIPTION

2.1 PRODUCT DEFINITION

Dates are the product prepared from sound fruit of the date tree (*Phoenix dactylifera* L.), which fruit:

(a) is harvested at the appropriate stage of maturity;

(b) is sorted and cleaned to remove defective fruit and extraneous material;

(c) may be pitted and capped;

(d) may be dried or hydrated to adjust moisture content;

(e) may be washed and/or pasteurized; and

(f) is packaged in suitable containers to assure preservation and protection of the product.

2.2 VARIETAL TYPES

Varietal types are classified as:

(a) **Cane sugar varieties** (containing mainly sucrose) such as Daglat Nuur (Deglet Noor) and Daglat Beidha (Deglet Beidha).

(b) **Invert Sugar varieties** (containing mainly invert sugar - glucose, and fructose) such as Barhi (Barhee), Saiidi (Saidy), Khadhraawi (Khadrawy), Hallaawi (Halawy), Zahdi (Zahidi), and Sayir (Sayer).

2.3 STYLES

Styles may be classified as:

(a) unpitted; and

(b) pitted.

2.4 SUB-STYLES

Sub-styles are as follows:

(a) **Pressed** - dates which are compressed into layers using mechanical force.

(b) **Unpressed or Loose** - dates which are free-flowing or packaged without mechanical force or compression.

(c) **Clusters** - dates with the main bunch stem attached.

2.5 SIZE CLASSIFICATION (Optional)

Dates may be designated as to size names in accordance with the following charts:

(a) **Unpitted dates**

Size	No. of dates in 500 g
Small	More than 100
Medium	80 to 100
Large	less than 80

(b) **Pitted dates**

Size	No. of dates in 500 g
Small	More than 110
Medium	90 to 110
Large	less than 90

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

Dates as defined in Section 2.1.

3.1.1 Other Ingredients

Glucose syrup, sugars, flour, vegetable oils.

3.2 QUALITY FACTORS

3.2.1 General Requirements

Dates shall be prepared from such fruit and under such practices that the finished product shall possess a characteristic colour and flavour for the variety and type, be of proper stage of ripeness, be free of live insects and insect eggs and mites and meet the following additional requirements:

(a)	**Moisture content**	**Maximum**
	Cane Sugar varieties	26%
	Daglat Nuur	30% (not processed in accordance with 2.1(d)(e))
	Invert Sugar varieties	30%
(b)	**Size (minimum)**	
	Unpitted Dates	4.75 grammes
	Pitted Dates	4.0 grammes
(c)	Pits (Stones) (in Pitted Style)	Not more than two pits or 4 pieces of pit per 100 dates
(d)	**Mineral impurities**	Not more than 1 g/kg

3.2.2 Definition of Defects

(a) **Blemishes**: Scars, discoloration, sunburn, dark spots, blacknose or similar abnormalities in surface appearance affecting an aggregate area greater than that of a circle 7 mm in diameter.

(b) **Damaged** (Unpitted dates only): Dates affected by mashing and/or tearing of the flesh exposing the pit or to such an extent that it significantly detracts from the visual appearance of the date.

(c) **Unripe Dates**: Dates which may be light in weight, light in colour, have shrivelled or little flesh or a decidedly rubbery texture.

(d) **Unpollinated Dates**: Dates not pollinated as evidenced by thin flesh, immature characteristics and no pit in unpitted dates.

(e) **Dirt**: Dates having embedded organic or inorganic material similar to dirt or sand in character and affecting an aggregate area greater than that of a circle 3 mm in diameter.

(f) **Insects and mites**: Dates damaged by insects or mites or contaminated by **damage and contamination** the presence of dead insects or mites, fragments of insects or mites or their excreta.

(g) **Scouring**: Breakdown of the sugars into alcohol and acetic acid by yeasts and bacteria.

(h) **Mould**: Presence of mould filaments visible to the naked eye.

(i) **Decay**: Dates that are in a state of decomposition and very objectionable in appearance.

3.2.3 Allowance for Defects

The maximum allowances for the defects defined in 3.2.2 shall be:

A total of 7% by count of dates with defect (a)

A total of 6% by count of dates with defects (b), (c) and (d)

A total of 6% by count of dates with defects (e) and (f)

A total of 1% by count of dates with defects (g), (h) and (i)

3.3 **Lot Acceptance**

A lot will be considered as meeting the quality criteria requirements of the Standard when:

(a) there is no evidence of live infestation; and

(b) the sub-sample~~, as taken in conformity with Sub-samples for Examination and Testing in Codex Alimentarius Volume 13,~~ meets the general requirements of Section 3.2.1 and does not exceed the allowances for the respective defects in Sections 3.2.2 and 3.2.3, except that, with respect to size requirements, 5% by count (5 dates out of 100) may weigh less than the specified minimum.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2

4.1 **[FUNCTIONAL CLASS]**

INS No.	Additives Name	Maximum Level
420(i)	Sorbitol	Limited by GMP (see also Section 3.1.1)
422	Glycerol	

5. **CONTAMINANTS**

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. **HYGIENE**

6.1 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), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Dried Fungi* (CAC/RCP 5-1971), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. **WEIGHTS AND MEASURES**

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

8. **LABELLING**

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

8.1 **NAME OF THE PRODUCT**

8.1.1 The name of the product shall be “Dates” or “Dates coated with Glucose Syrup”.

8.1.2 The style shall be indicated as “pitted” or “unpitted”, as is applicable.

8.1.3 The name of the product may include the name of the varietal type, such as “Hallawi”, “Saher”, “khadhrawi”, “Daglat”, “Noor”, “Barhee”, or others, the sub-style as “pressed” or “unpressed”, and the size designation as “small”, “medium” or “large”.

8.2 **LABELLING 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.

9. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

9.1 **SAMPLING PLAN**

8.1.1 **Gross Sample**

Select at random not less than 2 individual packages per each 1,000 kg portion of the lot. From each individual package draw a sample of 300g and in any case sufficient to obtain a gross sample of not less than 3,000g. Use the gross sample for checking carefully for live infestation and general cleanliness of the product prior to its examination for compliance with other provisions of the Standard.

8.1.2 **Sub-samples for Examination and Testing**

Mix the gross sample well and take small quantities at random from many different places as follows:

For moisture test	- 500 grammes
For pits (in pitted style)	- 100 dates
For specified defects and size requirements	- 100 dates

GENERAL STANDARD FOR EDIBLE FUNGI AND FUNGUS PRODUCTS

CODEX STAN 38-1981

1. SCOPE

This Standard contains general requirements applicable to all edible fungi, whether fresh or processed, permitted for sale by the competent authorities in the consuming countries, except canned cultivated mushrooms of the genus *Agaricus*. Different requirements for the products covered by this Standard may be laid down in group of products standards or in individual standards.

2. DESCRIPTION

2.1 DEFINITION OF PRODUCTS

2.1.1 **Edible fungi** means fruit bodies of a specific plant group - fungi which either grow wild or are cultivated and which after necessary processing are suitable for use as a food.

2.1.2 **Species** means botanical species and closely related varieties, i.e. varieties of *Boletus edulis* and round or pointed *Morchella* shall be regarded as being of the same species.

2.1.3 **Fresh fungi** means edible fungi sorted and packed, delivered to the consumer as soon as possible after they have been picked.

2.1.4 **Mixed fungi** means the product prepared by mixing edible fungi or recognizable parts of edible fungi of different species according to established proportion after being sorted in accordance with Section 2.4 of this Standard.

2.1.5 **Fungus products** means dried edible fungi (including freeze-dried fungi, fungus grits, fungus powder), pickled fungi, salted fungi, fermented fungi, fungi in vegetable oils, quick frozen fungi, sterilized fungi, fungus extract, fungus concentrate and dried fungus concentrate.

2.1.6 **Dried fungi** means the product obtained by drying or freeze drying edible fungi of one species, whether whole or sliced.

2.1.7 **Fungus grits** means coarsely ground dried edible fungi of one species.

2.1.8 **Fungus powder** means dried edible fungi of one species ground so finely as to allow the powder to pass through a sieve having a 200 microns mesh.

2.1.9 **Pickled fungi** means fresh or previously preserved edible fungi of one or more species appropriately prepared after previous cleaning, washing and blanching, soaked in vinegar and with or without the addition of salt, spices, sugars, vegetable oils, acetic, lactic, citric or ascorbic acid, and then pasteurized in hermetically sealed containers.

2.1.10 **Salted fungi** means fresh edible fungi of one species, either whole or sliced, preserved in brine after previous cleaning, washing and blanching.

2.1.11 **Fermented fungi** means fresh edible fungi of one species preserved by salt and by lactic acid fermentation.

2.1.12 ***Quick frozen fungi*** means fresh edible fungi of one species which, after cleaning, washing and blanching, are subjected to a freezing process in appropriate equipment and comply with the conditions laid down hereafter in this section and in Section 7.2 of this Standard. This freezing operation shall be carried out in such a way that the range of temperature of maximum crystallization is passed quickly. The quick-freezing process shall not be regarded as complete unless and until the product temperature has reached -18°C (0°F) at the thermal centre after thermal stabilization.

2.1.13 **Fungus extract** means a product concentrated from fresh edible fungi juice or from dried fungi water of edible fungi of one or more species with the addition of salt and which is concentrated to 7% of saltless extract.

2.1.14 **Fungus concentrate** means a product concentrated from fresh edible fungi juice or from dried fungi water of edible fungi of one or more species with the addition of salt and which is concentrated to 24% of saltless extract.

2.1.15 **Dried fungus concentrate** means the dried product obtained from fungus extract or fungus concentrate.

2.1.16 **Sterilized fungi** means edible fungi, either fresh, salted or frozen, of one or more species, whole or sliced, packed in airtight containers in water and salt, and heat treated to a degree guaranteeing the resistance of the product to spoilage.

2.1.17 **Fungi in olive oil and other vegetable oils** means edible fungi either fresh or previously salted, of one species, whole or sliced, packed in airtight containers in olive oil or other edible vegetable oil and heat treated to a degree guaranteeing the resistance of the product to spoilage.

2.1.18 **Cakes or loaves** of *fungus mycelium*.

2.2 **DEFINITION OF DEFECTS**

2.2.1 **Damaged fungi** means fungi with more than quarter of the cap missing.

2.2.2 **Crushed fungi** means parts of fungi passing through a sieve having a 15 x 15 mm mesh for fresh fungi and a 5 x 5 mm mesh for dried fungi.

2.2.3 **Spoiled fungi** means fungi which are brownish or rotten as a result of attack by micro-organisms and/or mould.

2.2.4 **Maggot damaged fungi** means fungi having holes caused by maggots.

2.2.5 **Seriously maggot damaged fungi** means fungi having four or more holes caused by maggots.

2.2.6 **Organic impurities of vegetable origin** means admixtures of other edible fungi, parts of plants such as leaves and pine needles.

2.2.7 **Mineral impurities** means those substances which, after ashing, remain as insoluble residues in hydrochloric acid.

2.3 **MAIN SPECIES**

All edible fungi permitted for sale by the competent authorities in the consuming countries.

2.4 **EXAMINATION AND SORTING OF RAW MATERIAL**

As there are edible fungi which closely resemble inedible or poisonous fungi, care shall be taken to ensure, when the fungi are being picked, that only those of the same edible species are collected. Where such care has not been adequately exercised, the edible fungi species shall be sorted from the collected fungi, before they are marketed, preserved or used in the preparation of fungus products. Wild fungi which are to be marketed or preserved, or used in the preparation of fungus products shall be carefully examined by an expert to determine whether there are any inedible fungi amongst them, and such inedible fungi shall be removed.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 **FRESH FUNGI**

3.1.1 **Condition**: Fresh edible fungi shall be healthy, i.e. not spoiled, practically clean, firm, undamaged, free, as far as possible, from maggot damage and shall possess the flavour and taste appropriate for the species.

3.1.2 **Composition**: The number of stalks shall not exceed the number of caps.

3.1.3 **Tolerances for defects**

3.1.3.1 ***Wild growing fungi***

(a) Mineral impurities	not more than 1% m/m
(b) Organic impurities of vegetable origin	not more than 0.3% m/m
(c) Content of Maggot damaged fungi	not more than 6% m/m of total damage including not more than 2% m/m serious damage

3.1.3.2 ***Cultivated fungi***

(a) Mineral impurities	not more than 0.5% m/m
(b) Organic impurities (including compost material):	
for uncut fungi	not more than 8% m/m
for cut fungi	not more than 1% m/m
(c) Content of maggot damaged fungi	not more than 1% m/m of total damage including not more than 0.5% m/m, serious damage

3.2 **FUNGUS PRODUCTS – GENERAL REQUIREMENTS**

3.2.1 **Raw Material**: only fresh edible fungi which have been treated or processed immediately after they have been picked, before deterioration sets in, may be used in the preparation of fungus products. Both as raw material and as preserved fungi, they shall be healthy, clean, undamaged, free, as far as possible, of maggot damage and possess the flavour and taste appropriate to the species.

3.2.2 **Permitted Ingredients**

Fungus products may contain salt (sodium chloride), vinegar, spices and herbs, sugars (any carbohydrate sweetening matter), refined edible vegetable oil, refined edible animal fat, butter, milk, milk powder, cream, water and wine.

3.2.3 **Styles**

Processed fungi may be presented in various styles, e.g. whole with stalks, whole caps (buttons) without stalks, slices, pieces and stalks, grits, powder or concentrate,

3.2.4 **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.

3.2.5 **Composition**

Except in the case of fungus products consisting entirely of caps or where the addition of stalks is stated on the label in accordance with the provisions of Section 8.1.6, the number of stalks shall not exceed the number of caps.

3.3 **FUNGUS PRODUCTS – SPECIAL REQUIREMENTS**

3.3.1 **Dried Fungi**

3.3.1.1 ***Quality Criteria***

(a) Colour and flavour shall be appropriate to the species.

(b) Water content

Product	**Maximum water content**
Freeze-dried fungi	6% m/m
Dried (other than freeze-dried) fungi	12% m/m
Dried fungus Shii-ta-ke	13% m/m

3.3.1.2 ***Permitted Defects***

(a) Mineral impurities	not more than 2% m/m
(b) Organic impurities of vegetable origin	not more than 0.02% m/m except for Shii-ta-ke mushrooms, for which the maximum shall be 1% m/m
(c) Content of maggot damaged fungi:	
wild growing fungi	not more than 20% m/m of total damage, including serious damage
cultivated fungi	not more than 1% m/m of total damage, including not more than 0.5% m/m serious damage.

3.3.2 **Fungus Grits and Fungus Powder**

3.3.2.1 ***Quality Criteria***

(a) Water content of fungus grits	not more than 13% m/m
(b) Water content of fungus powder	not more than 9% m/m

3.3.2.2	***Permitted Defects***	
	Mineral impurities	not more than 2% m/m
3.3.3	**Pickled Fungi**	
3.3.3.1	***Permitted ingredients***	
	(a) Salt (sodium chloride)	not more than 2.5% m/m
	(b) Sugars	not more than 2.5% m/m
	(c) Vinegar	not more than 2% m/m expressed as acetic acid
3.3.3.2	**Tolerances for defects**	
	(a) Mineral impurities	not more than 0.1% m/m
	(b) Organic impurities of vegetable origin	not more than 0.02% m/m
	(c) Content of maggot damaged fungi:	
	wild growing fungi	not more than 6% m/m of total damage including not more than 2% m/m serious damage.
	cultivated fungi	not more than 1% m/m of total damage including not more than 0.5% m/m serious damage.
3.3.4	**Fermented Fungi**	
3.3.4.1	***Essential Composition and Quality Factor***	
	Lactic acid, naturally occurring as a result of the fermentation process	not less than 1% m/m
3.3.4.2	***Permitted Ingredients***	
	Salt (sodium chloride)	not less than 3% m/m and not more than 6% m/m
3.3.4.3	***Tolerances for Defects***	
	(a) Mineral impurities	not more than 0.2% m/m
	(b) Organic impurities of vegetable origin	not more than 0.1% m/m
	(c) Content of maggot damaged fungi	not more than 4% m/m
3.3.5	**Fungi in Olive Oil and other Vegetable Oils**	
3.3.5.1	***Permitted Ingredients***	
	(a) Salt (sodium chloride)	not more than 1% m/m
	(b) Olive oil or other edible vegetable oil	
3.3.5.2	***Tolerances for Defects***	
	(a) Mineral impurities	not more than 0.1% m/m
	(b) Organic impurities of vegetable origin	not more than 0.02% m/m
	(c) Maggot damaged fungi:	
	wild growing fungi	not more than 6% m/m of total damage including not more than 2% m/m serious damage
	cultivated fungi	not more than 1% m/m of total damage including not more than 0.5% m/m serious damage.

3.3.6 **Quick Frozen Fungi**

3.3.6.1 ***Tolerances for Defects***

(a) Mineral impurities	not more than 0.2% m/m
(b) Organic impurities of vegetable origin	not more than 0.02% m/m
(c) Content of maggot damaged fungi:	
wild growing fungi	not more than 6% m/m of total damage including not more than 2% m/m serious damage
cultivated fungi	not more than 1% m/m of total damage including not more than 0.5% m/m serious damage.

3.3.7 **Sterilized Fungi**

3.3.7.1 ***Permitted Ingredient***

Salt (sodium chloride)	not more than 2% m/m

3.3.7.2 ***Tolerances for Defects***

(a) Mineral impurities	not more than 0.2% m/m
(b) Organic impurities of vegetable origin	not more than 0.02% m/m
(c) Content of maggot damaged fungi:	
wild growing fungi	not more than 6% m/m of total damage including not more than 2% m/m serious damage
cultivated fungi	not more than 1% m/m of total damage including not more than 0.5% m/m serious damage

3.3.8 **Fungus Extract and Fungus Concentrate**

3.3.8.1 ***Permitted Ingredient***

Salt (sodium chloride)	not more than 20% m/m

3.3.8.2 ***Tolerances for Defects***

(a) Mineral impurities)	
(b) Organic impurities of vegetable origin)	none

3.3.9 **Dried Fungus Concentrate**

3.3.9.1 ***Quality Criteria***

Water content	not more than 9% m/m

3.3.9.2 ***Permitted Ingredient***

Salt (sodium chloride)	not more than 5% m/m

3.3.9.3 ***Permitted Defects***

(a) Mineral impurities)	
(b) Organic impurities of vegetable origin)	none

3.3.10 **Salted Fungi** (semi-processed product)

3.3.10.1 ***Permitted Ingredient***

Salt (sodium chloride)	not less than 15% m/m and not more than 18% m/m

3.3.10.2***Tolerances for Defects***

(a) Mineral impurities	not more than 0.3% m/m
(b) Organic impurities of vegetable origin	not more than 0.05% m/m
(c) Content of maggot damaged fungi:	
wild growing fungi	not more than 6% m/m of total damage including not more than 2% m/m serious damage
cultivated fungi	not more than 1% m/m of total damage including not more than 0.5% m/m serious damage.

4. **FOOD ADDITIVES**

Option 1:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 2:

[FUNCTIONAL CLASSE(ES)]

INS	Additive Name	Maximum Level
260	Acetic acid	Not limited except as provided for below in respect of Pickled Fungi and Sterilized Fungi
270	Lactic acid	
330	Citric acid	
300	Ascorbic acid	
260	Acetic	20 g/kg in Pickled Fungi
270	Lactic acid	5 g/kg singly or in combination in Sterilized fungi
330	Citric acid	

5. **CONTAMINANTS**

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. **HYGIENE**

6.1 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), the *Code of Hygienic Practice for Canned Fruit and Vegetable Products* (CAC/RCP 2-1969), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Edible Fungi* (CAC/RCP 5-1971), the *Code of Practice for the Processing and Handling of Quick Frozen Foods* (CAC/RCP 8-1976), the *Code of Practice for the Packaging and Transport of Fresh Fruit and Vegetables* (CAC/RCP 44-1995), the *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CAC/RCP 53-2003), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. WEIGHTS AND MEASURES

7.1 FILL OF CONTAINER

7.1.1 Minimum Fill

The container shall be well filled with mushrooms and the product (including packing medium) shall occupy not less than 90% (minus any necessary head space according to good manufacturing practices) of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

7.1.2 Classification of "Defectives"

A container that fails to meet the requirement for minimum fill of Section 7.1.1 should be considered as a "defective".

7.2 MINIMUM DRAINED WEIGHT

The drained weight of the product shall be not less than the following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled[1]:

	Container size 0.5 l or less	Container size more than 0.5 l
Regular packs)		
Vinegar packs)	50% m/m	53% m/m
Wine packs)		

8. PACKING, STORAGE AND TRANSPORTATION

8.1 The packaging used for fresh fungi shall be perforated to allow the free passage of air, if needed.

8.2 The product shall be maintained at a low temperature such as will maintain the quality during transportation, storage and distribution up to and including the time of final sale. The recognized practice of thawing and repacking products under controlled conditions followed by the application of the quick-freezing process as defined in Section 2.1.12 of this Standard is permitted.

8.3 In the case of (a) dried fungi, and (b) fungus grits and fungus powder, attention is directed to the need to prevent these products from absorbing moisture and being attacked by insects, particularly moths and mites.

9. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

9.1 NAME OF THE PRODUCT

9.1.1 Products complying with the definitions and other requirements of this Standard shall be appropriately designated to indicate their true nature. The terms "fungus" and "fungi" may be replaced by the terms which have customarily been used to describe the genus or species concerned in the country in which the product is intended to be sold, e.g. "mushroom" or "mushrooms" for the genus *Agaricus*. The method of processing to which the product has been subjected, e.g. "dried", "sterilized" or "quick-frozen", shall be indicated on the label.

9.1.2 In the case of fresh, dried, salted, quick-frozen, fermented, pickled and canned fungi, the common name of the species of fungi shall be stated in addition to the word "fungi". The scientific name of the species shall also be stated.

9.1.3 In the case of fungus products consisting of more than one species of fungus, the word "mixed" shall form part of the designation. Additionally, the name (including scientific name) of the species shall be stated on the label.

9.1.4 In the case of fungus products made from fungi other than fresh fungi, there shall be a statement on the label indicating the method of processing to which the fungi used in the preparation of the final product have been subjected.

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[1] For non-metallic rigid containers such as glass jars, the basis for the determination should be calculated on the weight of distilled water at 20□C which the sealed container will hold when completely filled less 20 ml.

9.1.5 Where salted fungi are used as raw material for the preparation of other fungus products, there shall be a statement on the label indicating that salted fungi have been used.

9.1.6 If stalks have been added to fresh fungi or fungus products, the words “stalks added” shall appear on the label.

9.1.7 If the product is produced in accordance with the other styles provision (Section 3.2.4), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

9.2 **LIST OF INGREDIENTS**

A complete list of ingredients shall be declared on the label in descending order of proportion except for dried fungi.

9.3 **LABELLING 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.

10. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.

STANDARD FOR DRIED EDIBLE FUNGI

CODEX STAN 39-1981

1. SCOPE

This Standard applies to dried fungi (including freeze-dried fungi), whole or sliced, of all edible species, after preparation and packaging.[1]

2. DESCRIPTION

2.1 DEFINITION OF PRODUCTS

2.1.1 **Whole dried fungi** means the product obtained from cleaned and dried edible fungi. Their stalks may be shortened.

2.1.2 **Whole caps without stems**

2.1.3 **Cut dried fungi** means the product obtained from whole edible fungi sliced and dried, the thickness of individual slices being 1-4 mm.

2.1.4 **Other Styles**

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

(c) is sufficiently distinctive from other forms of presentation laid down in the Standard;

(d) 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

(e) is adequately described on the label to avoid confusing or misleading the consumer.

2.2 DEFINITION OF DEFECTS

2.2.1 **Damaged fungi** means whole fungi, with more than quarter of the cap missing, or, in the case of cut fungi, means fungi with more than one third of the total surface of the slice missing.

2.2.2 **Carbonized fungi** means whole or cut dried fungi with traces of carbonization on their surface.

2.2.3 **Maggot damaged fungi** means fungi having holes caused by maggots.

2.2.4 **Seriously maggot damaged fungi** means fungi having four or more holes caused by maggots.

2.2.5 **Crushed fungi** means parts of mushrooms passing through a sieve having a 5 x 5 mm mesh.

2.2.6 **Fallen-off stalks** means stalks separated from the caps.

2.2.7 **Organic impurities of vegetable origin** means admixtures of other edible fungi, parts of plants such as leaves, pine needles, etc.

2.2.8 **Mineral impurities** means those substances which, after ashing, remain as insoluble residues in hydrochloric acid.

2.3 MAIN SPECIES

All edible fungi permitted for sale by the competent authorities in the consuming countries.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

3.1.1 Basic Ingredients

3.1.2 Other Ingredients

3.2 QUALITY FACTORS

3.2.1 Raw Material

The raw material used for the production of dried edible fungi shall meet the general requirements set out in the *General Standard for Edible Fungi and Fungus Products* (CODEX STAN 38-1981).

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[1] This Standard also covers dried fungus Shii-ta-ke.

3.2.2 **End Product**

3.2.2.1 Dried edible fungi shall be healthy, i.e. not spoiled; of a colour, flavour and taste appropriate for the species; clean, i.e. free of organic and mineral impurities; free, as far as possible, from maggot damage and damage caused by insects; undamaged.

3.2.2.2 Dried Edible Fungi shall be properly dried and conform with the following:

Product	**Maximum water content**
Freeze-dried fungi	6% m/m
Dried (other than freeze-dried) fungi	12% m/m
Dried fungus Shii-ta-ke	13% m/m

3.2.3 **Tolerances for Defects**

3.2.3.1 A maximum of 25% m/m of fungi not satisfying the end-product requirements specified in Section 3.2.1 is allowed.

3.2.3.2 Within the tolerance, provided for in Section 3.2.1, the following individual tolerances shall apply:

Defects	**Tolerance**
mineral impurities	not more than 2% m/m
organic impurities of vegetable origin	not more than 0.02% m/m except for Shii-ta-ke mushrooms for which the maximum shall be 1% m/m
maggot damaged fungi:	
wild growing fungi	not more than 20% m/m of total damage including serious damage
cultivated fungi	not more than 1% m/m of total damage including not more than 0.5% m/m of serious damage
crushed fungi	not more than 6% m/m
carbonized fungi	not more than 2% m/m
damaged fungi	not more than 20% m/m fallen-off stalks shall be equal in number to caps, i.e. 1:1.

4. FOOD ADDITIVES

Option 1:

None permitted.

Option 2:

[Food additive functional class(es)] used in accordance with Tables 1 and 2 of the *General Standard for Food Additives* (CODEX STAN 192-1995) in food category(ies) [number] [food category name(s)] or listed in Table 3 of the General Standard are acceptable for use in foods conforming to this Standard.

Option 3:

[FUNCTIONAL CLASSE(ES)]

INS No.	**Additive Name**	**Maximum Level**

5. CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

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

6. HYGIENE

6.1 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), the *Code of Hygienic Practice for Dehydrated Fruits and Vegetables including Edible Fungi* (CAC/RCP 5-1971), and other relevant codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997).

7. PACKAGING AND PRESENTATION

7.1 UNIFORMITY

Packages (cartons, polyethylene bags, boxes) in a lot shall each contain fungi of the same commercial type, and shall have a uniform net weight.

7.2 PACKAGING

Cartons, bags and boxes shall be such as to ensure adequate protection against humidity during storage and transport of the product. Any paper or other material used inside the package shall be new, waterproof and harmless to human health. Fungi shall not come into contact with printed inscriptions on the package.

7.3 Fungi shall be loosely packed in packing units.

8. LABELLING

In addition to the requirements of the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

6.1 NAME OF THE PRODUCT

Products complying with the definitions and other requirements of this Standard shall be so designated as to specify:

(a) the common and scientific name of the species of fungus used, but the terms “fungus” and “fungi” may be replaced by terms which have customarily been used to describe the genus or species concerned in the country in which the product is intended to be sold, e.g. “mushroom” or “mushrooms” for the genus *Agaricus*:

(b) the type of product: “dried fungi” or “freeze-dried fungi”;

(c) the style: “whole”, “caps” or “sliced”.

6.1.4 If the product is produced in accordance with the other styles provision (Section 2.1.4), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

6.2 LABELLING 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.

7. METHODS OF ANALYSIS AND SAMPLING

For checking the compliance with this Standard, the methods of analysis and sampling contained in the *Recommended Methods of Analysis and Sampling* (CODEX STAN 234-1999) relevant to the provisions in this Standard, shall be used.