

CODEX STANDARD FOR CANNED PALMITO**CODEX STAN 144-1985****1. SCOPE**

This standard covers the product known as canned palmito (in some countries, canned hearts of palm), and is prepared with palmito as the predominant ingredient and which may include small quantities of vegetables as a garnish or seasoning and also spices and aromatic herbs. The product is prepared from fresh palmito. The word "palmito", hereafter used in this document, means "canned palmito" or "canned hearts of palm".

2. DESCRIPTION**2.1 Product Definition**

Canned palmito is the product: (a) prepared from the edible portion of sound palms, which includes their terminal vital part (apical gemmation) and the upper and lower regions corresponding respectively to the growing soft leaves (characterized by a heterogeneous structure) and palm stipe consisting of the soft tissues of the stipe (characterized by a homogeneous structure which may be involved by one or two soft leaves) conforming with the characteristics of the species *Euterpe edulis* (Mart.) or *Euterpe oleracea* (Mart.) or any other genera and/or species appropriate for human consumption, from which the fibrous parts have been removed; (b) packed with water or other suitable medium, seasonings and other ingredients appropriate to the product; and (c) processed (acidified and heat pasteurized or heat sterilized) in an appropriate manner, before and/or after being sealed in a container to prevent spoilage.

2.2 Flavour Types

With respect to flavour, canned palmito or distinct genera or species may be designated as:

- (a) Normal
- (b) Bitter

2.3 Styles

- (a) **Pieces** - consisting of the terminal vital part of the palm and its upper region, cut transversely into pieces not less than 80 mm, and not more than 120 mm in length.
- (b) **Slices** - consisting of the terminal vital part of the palm and its upper region, cut transversely into slices not less than 15 mm and not more than 35 mm in thickness.
- (c) **Palm Stipe-cuts** - consisting of the lower region of the terminal vital part of the palm, cut into pieces which may or may not be symmetrical and uniform in size and shape.

2.3.1 Other Styles

Any other presentation of the product shall be permitted provided that it:

- (a) is sufficiently distinctive from other forms of presentation laid down in this standard;
- (b) meets all other requirements of this standard;
- (c) is adequately described on the label to avoid confusing or misleading the consumer.

2.3.2 Allowances for Styles

The length and thickness requirements for the styles "pieces" and "slices" respectively listed in 2.3 (a) and (b), will be considered to have been met when:

- i) The predominant length or thickness of the units in each container of the sample (n) falls within the designated style classification;
- ii) The length or thickness of the units is reasonably uniform. "Reasonably uniform" based on the units of each container signifies:
 - (a) **Pieces** - All the units from the container are within ± 10 mm of the predominant length, provided they are in accordance with 2.3 (a)
 - (b) **Slices** - All the units from the container are within ± 10 mm of the predominant thickness, provided they are in accordance with 2.3 (b).

2.3.2.1 Any container that exceeds the allowances in the foregoing paragraph 2.3.2 will be considered as "defective" for its style designation.

2.3.2.2 A lot will be considered as meeting the criteria for style designation when the number of defectives as defined in paragraph 2.3.2.1 does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM 42-1969) (see Codex Alimentarius Volume 13).

2.4 Designation in accordance with size

Pieces may be designated according to diameter in the following manner:

Single sizes

"Small"	- above 15 mm and up to 25 mm inclusive
"Medium"	- above 25 mm and up to 35 mm inclusive
"Large"	- above 35 mm and up to 50 mm inclusive
"Extra Large"	- above 50 mm

Blend of sizes or Assorted sizes

- a mixture of two or more single sizes

2.4.1 Definition of "diameter"

The diameter of a "piece" is the maximum diameter at the thickest part of the unit, measured at right angles to the longitudinal axis of the unit.

2.4.2 Compliance with "single size" designations

- (a) When the product is declared, presented or offered as conforming to the single size designation in 2.4 other than "Blend of sizes" or "Assorted sizes" the sample unit shall conform to the diameter specified for each single size, with the following allowance:

30% by count of all units in the container may belong to adjacent size designations.

- (b) Any container that exceeds the allowance in the foregoing sub-paragraph (a) will be considered as "defective" for its Size Classification.
- (c) A lot will be considered as meeting the criteria for a Single Size Designation, when the number of defectives as defined in sub-paragraph (b) does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM 42-1969) (see Codex Alimentarius Volume 13).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1 Basic Ingredients**

Palmito and packing medium appropriate to the product, plus other ingredients (see 3.1.1).

3.1.1 Other Permitted Ingredients

- (a) Salt (sodium chloride), sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup, vinegar.
- (b) Aromatic herbs and spices: stock or juice of fruits and vegetables (lemon, onion, carrot, etc.) and aromatic herbs, garnishes composed of one or more vegetables (onions, carrots, pieces of green or red peppers, or mixtures of both, etc.), up to a maximum of 10% of the total drained vegetable ingredients.
- (c) Butter, margarine, or other edible animal or vegetable fats or oils. If butter or margarine is added, this must amount to not less than 3% of the final product (total contents).
- (d) Starches - natural (native) maximum level 0.5% m/m, physically or enzymatically modified are only added when butter, margarine or other edible animal or vegetable fats or oils have also been added.

3.2 Quality Criteria

3.2.1 Colour

The drained palmito shall have the normal colour characteristics for canned palmito containing permitted ingredients and additives shall be considered to be of a characteristic colour when there is no abnormal discolouration considering the different ingredients.

3.2.2 Packing Medium

The packing medium, when liquid, may be slightly turbid or moderately turbid, when affected by other ingredients, and only a small amount of sediment or bits of palmito may be present.

3.2.3 Flavour

Canned palmito shall have a normal flavour for the different "Flavour Types" (2.2) and a normal odour, free from flavours or odours foreign to the product. Canned palmito containing special ingredients shall have the flavour characteristics imparted by the palmito and the other substances added.

3.2.4 Texture

The product shall be reasonably free from units that are tough or excessively fibrous, and/or excessively soft.

3.2.5 Defects and Allowances

Limitations

(a)	Poor texture (Tough or excessively fibrous and/or excessively soft parts, which seriously affect the edibility of the unit)	10% m/m of the drained weight of the sample (n) ¹
(b)	Mineral impurities (such as sand, grit, or earthy material)	0.1% m/m
(c)	Blemished units (includes discolouration, scars or scratches, skin breaks or other similar imperfections which seriously affect the appearance of the unit)	15%, by count, of all the units in the sample (n) ¹
(d)	Mechanical damage (means broken or split units or detached pieces which seriously affect the appearance of the unit)	10%, by count, of all the units in the sample (n) ¹

¹ Based on the total of units from all containers in the sample (n) of the appropriate sampling plan in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM 42-1969) (see Codex Alimentarius Volume 13).

Defects and Allowances	Limitations
(e) Off colour (those units that vary markedly from the typical colour of the product)	10%, by count, of all the units in the sample (n) ²
(f) Physiological factors (those units of the units styles "Whole" (2.3 (a)) and "Slices" (2.3 (b)) that include growing parts of the palm stipe)	10%, by count, of all the units in the sample (n) ¹

Total limitation of all the defects in (c), (d), (e), (f) for the following styles:

Pieces	-	20% by count of all the units in the sample (n)
Slices	-	25% by count of all the units in the sample (n)

Total limitation of defects in (e) for the style:

Palm stipe cuts	-	10% by count of all the units in the sample (n).
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3.2.6 **Classification of "defectives"**

A sample (n) that fails to meet one or more of the applicable quality requirements, as set out in sub-sections 3.2.1 through 3.2.5 shall be considered as "defective".

3.2.7 **Acceptance**

A lot will be considered as meeting the applicable quality requirements referred to in sub-section 3.2.6 when the requirements which are based on the total sample are complied with.

4. **FOOD ADDITIVES**

The following provisions with respect to food additives are subject to endorsement by the Codex Committee on Food Additives, as indicated:

	Maximum Level in the Final Product
4.1 Stannous chloride, only for palmito in glass or in fully enamel-lined (lacquered) cans	25 mg/kg
4.2 L-ascorbic acid	300 mg/kg

² Based on the total of units from all containers in the sample (n) of the appropriate sampling plan in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (CAC/RM 42-1969) (see Codex Alimentarius Volume 13).

4.3	Acidifying agents		Final Product
	Maximum Level in the		
4.3.1	Citric acid	})	to maintain the pH at a level not above 4.6 if the product is
4.3.2	L(+) tartaric acid	}	heat pasteurized or limited by
4.3.3	dl-lactic acid	}	GMP if the product is heat sterilized

4.4 **Vegetable gums, pectins, alginates** - To be used only when butter, margarine or other animal or vegetable fats or oils are added as ingredients, as follows:

Maximum Level - 1% m/m singly or combination

4.4.1 **Vegetable gums**

4.4.1.1 Gum Arabic (Acacia)

4.4.1.2 Guar Gum

4.4.1.3 Carrageenan

4.4.2 Pectin

4.4.3 Alginates (Ca, K, Na, NH₄)

4.5 **Modified Starches**

To be used as indicated in Section 4.4 Maximum level - 0.5% m/m singly or in combination.

4.5.1 Acid-treated starches

4.5.2 Alkali-treated starches

4.5.3 Bleached starches

4.5.4 Distarch phosphate (phosphated)

4.5.5 Distarch phosphate (sodium trimetaphosphate treated)

4.5.6 Monostarch phosphate

4.5.7 Distarch phosphate, acetylated

4.5.8 Distarch glycerol, acetylated

4.5.9 Distarch adipate, acetylated

4.6 Processing Aids

4.6.1 Sodium metabisulphite - 20 mg/kg, as SO₂

5. CONTAMINANTS

Tin (Sn)	250 mg/kg calculated as Sn
Lead (Pb)	1 mg/kg

6. HYGIENE

6.1 It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 2 (1985) Codex Alimentarius Volume 1), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to this product.

6.2 To the extent possible in Good Manufacturing Practice, the product shall be free from objectionable matter.

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

- shall be free from microorganisms in amounts which may represent a hazard to health;
- shall be free from parasites which may represent a hazard to health; and
- shall not contain any substance originating from microorganisms in amounts which may represent a hazard to health.

6.4 To prevent the growth of *Clostridium botulinum* the product shall have received one of the following treatments:

- (a) a processing treatment sufficient to destroy all spores of *Clostridium botulinum*;
- (b) heat pasteurization where the product has been properly artificially acidified to an equilibrium pH of 4.6 or below.

7. WEIGHTS AND MEASURES

7.1 Fill of Container

7.1.1 Minimum Fill

The container shall be well filled with palmito and the product (including packing medium) shall occupy not less than 90% 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 requirements for minimum fill (90% container capacity) of 7.1.1 shall be considered "defective".

7.1.3 Acceptance

A lot will be considered as meeting the requirements of 7.1.1 when the number of "defectives" does not exceed the acceptance number (c) of the appropriate sampling plans (AQL-6.5) in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Processed Fruits and Vegetables (see Codex Alimentarius Volume 13).

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 mass of distilled water at 20°C which the sealed container will hold when completely filled:

Styles	Percentages	
	1 kg (850 ml)	½ kg (425 ml)
Pieces	53	52
Slices	59	59
Palm stipe-cuts	59	59

7.1.4.2 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 Prepackaged Foods (Ref. No. CODEX STAN 1-1985), (Rev. 1-1991) Codex Alimentarius Volume 1, the following specific provisions apply:

8.1 The Name of the Food

The name of the product shall be "Palmito" or "Hearts of Palm" or its equivalent according to the country in which the product is intended to be sold.

8.1.1 The following, as appropriate, shall be included as part of the name or in close proximity to the name:

8.1.1.1 The Style:

"Pieces", "Slice", "Palm stipe-cuts".

8.1.1.2 The Flavour

For flavour type (2.2) only the bitter flavour (2.2.(b)) shall be declared on the label as:

"Bitter".

8.1.1.3 A declaration of any special sauce and/or seasoning which characterizes the product, e.g. "with X" or "in X", when appropriate. If the declaration is "with (or "in") Butter Sauce", the fat used shall only be the butter fat.

8.2 List of Ingredients

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 Prepackaged Foods (Ref. No. CODEX STAN. 1-1985), (Rev. 1-1991), Codex Alimentarius Volume 1, except that (a) processing aids in 3.7 need not be declared; and (b) pork fat, lard or beef fat shall always be declared by their specific names. The label shall not present any reference to vitamin C when ascorbic acid is used as antioxidant and/or acidulant.

8.3 Other Declarations

8.3.1 Size representation - in Style pieces

8.3.1.1 If the pieces comply with the applicable requirements of this standard, they may be declared as "Small", "Medium", "Large", "Extra Large", "Blend of Sizes", or "Assorted Sizes", as appropriate.

8.3.1.2 The number of units present in the container may be shown by a range of approximate count, e.g.: "approximately _____ to _____ pieces".

9. METHODS OF ANALYSIS AND SAMPLING

See Codex Alimentarius Volume 13.