



JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON SPICES AND CULINARY HERBS

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Comment of Guatemala

PROPOSED DRAFT STANDARD FOR DRIED SMALL CARDAMOM (At Step 7)

1 SCOPE

This standard applies to plant products in their dried form as spices, defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes the product for industrial processing.

2 DESCRIPTION

2.1 Product definition

Dried small cardamom is a product obtained from the dried fruits of the plant *Elettaria cardamomum* (L.) Matonof Zingiberaceae family as described in Table 1.

Table 1. Common and scientific name of dried small cardamom

Common name	Trade name	Scientific Name
Small cardamom	Cardamom, Green cardamom	<i>Elettaria cardamomum</i> (L.) Maton

2.2 Styles

Dried small cardamom may be:

- Whole unopened capsules/pods: *Intact pods that have not lost seed from inside and may have an opening equal to or less than 30% of the pod.*)
- Whole Opened capsules / pods: *These are pods that have an opening above 30 % and/or has a maximum opening of 30 %, but have not lost their seed.*
- Seeds: *(seeds with characteristic odor, colored in dark, maroon and slightly yellow with no present malformation or ripped in them)*
- Seed powder *(obtained after grinding dry cardamom seeds)*
- Powdered Whole unopened or opened capsules/pods: *obtained from grinding whole opened/unopened pods/capsule with seeds inside.*

Other styles distinctly different from those three are allowed, provided they are labeled accordingly

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

Product as described in Section 2.

3.2 Quality factors

3.2.1 Odour, flavour and colour:

The product shall have a characteristic odour, flavour and colour, which can vary depending on geo-climatic factors/conditions, and shall be free from any foreign odour, flavour, and colour especially from rancidity and mustiness.

3.2.2 Chemical and physical characteristics

1. **Empty capsules/pods:** open or closed capsules or pods with no seeds inside.
2. **Pods or Capsules with superficial harm:** These are open or closed capsules/pods with superficial harm or wrinkle on the outside.
3. **Shrivelled Capsules:** Pods/capsules with no seeds inside and a flat, wrinkled and dry appearance.
4. **Light Seeds:** Yellow and/or light maroon seeds with a dry aspect
5. **Foreign matter:** portion of visible matter with a maximum 10 times magnifying power, that is not part of the cardamom plant. This matter origin can be non-animal (e.g. stems, stones, straws, visible moulds) or from animal foreign matter origin (e.g. excreta, insects and products contaminated by insects).
6. **Extraneous matter:** portion of visible matter with a maximum 10 times magnifying power which are species waste belonging to the plant of cardamom, such as: flower or vegetable residues.

i. Classification (optional)

If traded as classified, the provisions in Annex I shall apply as minimum requirements.

4 FOOD ADDITIVES

The anticaking agents listed in Table 3 of the *General Standard for Food Additives* (CXS192-1995) may be permitted for use in ground/powdered small cardamom.

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* (CXS 193-1995), the Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (CXC 78- 2017) and other relevant Codex texts.

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

4. HYGIENE

4.1 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* (CXC 1-1969), the *Code of Hygienic Practice for low moisture foods* (CXC 75-2015) Annex III Spices and Dried Culinary Herbs and other relevant Codex texts.

4.2 The products should comply with any microbiological criteria established in accordance with the *Principles for the Establishment and Application of Microbiological Criteria for Foods* (CXG 21-1997).

5. 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.

6. LABELLING

6.1 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* (CXS 1-1985). In addition, the following specific provisions apply:

6.2 Name of the Product

6.2.1 The common name of the product shall be as described in Section 2.1.

6.2.2 The name of the product may include an indication of the style as described in Section 2.2.

6.2.3 Trade name, variety or cultivar may be listed on the label.

6.3 Country of origin/country of harvest

6.3.1 Country of origin shall be declared.

6.3.2 Country of harvest (optional).

6.3.3 Region of harvest and year of harvest (optional).

6.4 Labelling of Non-Retail Containers

The labelling of non-retail containers should be in accordance with the *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021).

7. METHODS OF ANALYSIS AND SAMPLING

7.1 Methods of Analysis

As described in Annex II, Table 1

7.2 SAMPLING PLAN

To be developed

Table 1. Chemical Characteristics for Dried Small Cardamom

Chemical Characteristics for Dried Small Cardamom					
Product Name	Style	Total ash on dry basis % w/w (max.)	Acid insoluble ash on drybasis % w/w (max.)	Moisture content % w/w(max.)	Volatile oil on drybasis ml/100g (min.)
Small Cardamom	Whole unopened capsules/pods	9.5	2.5	13	3.5
	Whole Opened capsules / pods	9.5	2.5	13	3
	Seeds	9.5	3	13	3.5
	Powdered seeds	8	3	11	1
	Powdered Whole unopened or opened capsules/pods	10	2.5	12	2.7

*For steam treated seeds.

Annex I

Table 2. Physical Characteristics for Dried Small Cardamom

Product Name	Style	Open pods / capsules %w/w (max)	Empty capsules	shriveled capsules	Light seeds	Insect defiled	Extraneous matter ¹	Foreign matter ²	Whole insects, dead	Live insects	Mammalian Excreta	Other excreta	Visible Mold
		% w/w (max)	by count / 100 capsules (Max)	% w/w (max)	% w/w (max)	% w/w (max)	% w/w (max)	% w/w (max)	% w/w (max)	(by count) / 100 g (max)	by count / 100 g (Max)	mg/kg (max)	mg/kg (max)
Small Cardamom	Whole unopened capsules/pods	< 10%	5	7	NA	1	5	0.5	4	0	6.6	2.2	1
	Whole Opened capsules / pods	> 60 %	60	7	NA	N/A	5	0.5	4	0	6.6	2.2	1
	Seeds	NA	NA	NA	5	N/A	2	N/A	4	0	6.6	2.2	1
	Powdered seeds	NA	NA	NA	NA	NA	NA	N/A	NA	0	NA	NA	NA
	Powdered Whole unopened or opened capsules/pods	NA	NA	NA	NA	NA	NA	N/A	NA	0	NA	NA	NA

N/A*: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero'

¹ Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product.

²Any visible/detectable objectionable foreign matter or material not usually associated with the natural components of the spice plant, such as sticks, stones, burlap bagging, metal, etc.

Table 1. Method of analysis*

Provision	Method ¹	Principle	Type ²
Moisture	ISO 939	Distillation	I
	ASTA 2.0	Distillation	III
	AOAC 986.21	Distillation	III
Total Ash	ISO 939 and ISO 928	Distillation and Gravimetry	I
	ASTA 4.0	Distillation and Gravimetry	III
	AOAC 941.12(b)	Distillation and Gravimetry	III
Acid Insoluble Ash	ISO 939 and ISO 930	Distillation and Gravimetry	I
	ASTA 4.0	Distillation and Gravimetry	III
	AOAC 941.12	Distillation and Gravimetry	III
Volatile Oil	ISO 939 and ISO 6571	Distillation followed by Volumetry	I
	ASTA 5.0	Distillation followed by Volumetry	III
	AOAC 962.17	Distillation followed by Volumetry	III
Extraneous Matter	ISO 927	Visual Examination followed by Gravimetry	I
	ASTA cleanliness specifications for spices, seeds, and herbs	Visual Examination followed by Gravimetry	III
Foreign Matter	ISO 927	Visual Examination followed by Gravimetry	I
	ASTA cleanliness specifications for spices, seeds, and herbs	Visual Examination followed by Gravimetry	III
Insect defiled/infested	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual) MPM: V-8. Spices	Visual Examination followed by Gravimetry	I
	ISO 927	Visual Examination followed by Gravimetry	III
Immature and shriveled capsules	ISO 927	Visual Examination followed by Gravimetry	I

Mammalian or/and Other excreta	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual) MPM: V-8. Spices	Visual Examination followed by Gravimetry	I
	ISO 927	Visual Examination followed by Gravimetry	III
Mould visible	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual) MPM: V-8. Spices	Visual Examination followed by Gravimetry	I
	ISO 927	Visual Examination followed by Gravimetry	III
Empty and malformed capsules	ISO 927	Visual Examination followed by Gravimetry	I
Whole insect Live/dead	ISO 927	Visual examination followed by Gravimetry	I
Light seeds	ISO 927	Visual examination followed by Gravimetry	I
OPENED CAPSULES/PODS	ISO 927	Visual examination followed by Gravimetry	I

¹ Latest edition or version of the approved method should be used

² According to the definition of “types of method of analysis” as per Codex Procedural Manual Section II

* The methods of analysis will be included in CXS 234-1999 after endorsement by CCMAS and the following text replace the Table

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