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

DRAFT STANDARD FOR SPICES IN THE FORM OF DRIED FRUITS AND BERRIES  
REQUIREMENTS FOR LARGE CARDAMOM

(Comments of the European Union, Ghana, Philippines, Thailand)

The European Union

*Mixed Competence*

*Member States Vote*

The European Union and its Member States (EUMS) would like to thank Bhutan, India and Nepal for updating the draft **Standard for spices in the form of dried fruits and berries – requirements for large cardamom**, and would like to submit the following comments.

**General comments**

It should be considered using a consistent terminology throughout the document, especially in comparison with other Codex standards, such as CXS 357-2024 (small cardamom), where possible.

**Specific comments on the paragraphs and Annex**

For background information, please refer to CX/SCH 25/8/4.

DRAFT STANDARD FOR DRIED OR DEHYDRATED FRUITS AND BERRIES –  
REQUIREMENTS FOR LARGE CARDAMOM

(Step 3/4)

**1. SCOPE**

This standard applies to dried or dehydrated fruits and berries – large cardamoms as defined in Section 2.1 below offered for direct human consumption, as an ingredient in food processing or for repackaging if required. This standard does not apply to those products when intended for industrial processing.

**2. DESCRIPTION**

**2.1 Product definition**

Dried or dehydrated large cardamom is a product obtained from sufficiently developed fruits of *Amomum subulatum* Roxb. of Zingiberaceae family as described in Table 1. The capsules/pods are ovoid and shaped with a ribbed surface and dried or dehydrated large cardamom color varies from maroon or light to dark brown in whole, light to dark brown or black in seed and light to dark brown in ground form.

The EUMS suggest considering moving the following part of the last sentence of 2.1 under point 3.2.2 “Odour, flavour and colour”:

“dried or dehydrated large cardamom colour varies from maroon or light to dark brown in whole, light to dark brown or black in seed and light to dark brown in ground form.”

Table 1: Common, trade and scientific name of dried or dehydrated large cardamom

Common name	Trade name	Scientific name
Large cardamom	Large cardamom	<i>Amomum subulatum</i> Roxb.

## 2.2 Styles

The EUMS suggest considering using the terms, where possible, as in CXS 357-2024 (small cardamom), e.g.:

- **seeds** (seeds obtained after opening of the pods/capsules);
- **powdered** whole capsule ~~powder~~: powder obtained by grinding dried whole capsule.

The terminology in 2.2 should be used in tables A1 and A2 accordingly.

Dried or dehydrated large cardamom may be:

- [whole (unopened pods/capsules/1/4th opened capsules/pods with intact seed)];
- seed (seed obtained after opening of the pods/capsules);
- ground/powdered seeds: powder obtained by grinding dried seeds; or
- whole capsule powder: powder obtained by grinding dried whole capsule.

Other styles distinctly different from those four listed above are allowed, provided they are labelled accordingly.

## 2.3 Sizing (optional)

# 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

## 3.1 Composition

Dried or dehydrated large cardamom as described in Section 2 above, shall conform to the requirements contained in Annex I.

## 3.2 Quality factors

### 3.2.1 General

Dried or dehydrated large cardamom shall be safe and suitable for human consumption. It shall be free from live insects, extraneous and foreign matters.

### 3.2.2 Odour, flavour and colour

Dried or dehydrated large cardamom 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.

### 3.2.3 Chemical and physical characteristics

Dried or dehydrated large cardamom shall comply with the chemical and physical characteristics specified in Annex 1 (Table A1: Chemical characteristics and Table A2 Physical characteristics).

The defects allowed must not affect the general appearance of the product as regards its quality, keeping quality and presentation in the package.

# 4. FOOD ADDITIVES

Anticaking agents listed in Table 3 of the *General Standard for Food Additives* (CXS 192-1995) are acceptable for use in ground/powdered form of dried or dehydrated large cardamom.

# 5. CONTAMINANTS

The products covered by this standard shall comply with the maximum levels specified in the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995) and shall be produced in accordance with the *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78- 2017) and other relevant Codex Alimentarius texts.

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

# 6. FOOD HYGIENE

It is recommended that the products covered by this standard shall 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 on spices and dried culinary herbs, and other relevant Codex Alimentarius texts.

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* (CXG 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.

## 8. LABELLING

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

### 8.1 Name of the product

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

The EUMS suggest that either "the common name" should be specified on 8.1.1 or the whole sentence is removed.

"8.1.1 The name of the product shall be **the 'common name'**, as described in Section 2.1."

Rational:

Paragraph 8.1.1 is not clear as is. Do we refer only to the common name as the trade name and the scientific name are referred to in 8.1.3?

According to the Codex General Standard on the Labelling of Prepackaged Foods (GSLPF), the indication of the name of the food/product is mandatory and this section is in addition to the GSLPF. The sentence would therefore be redundant.

If the sentence is kept, does this mean that the common name referred to in table 1 shall be name of the product? If yes, this should be specified here.

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

The EUMS suggest deleting 'may' and inserting 'shall':

"8.1.2 The name of the product **shall** ~~may~~ include an indication of the style as described in Section 2.2"

Rational:

According to the GSLPF, the nature and physical condition has to be indicated where necessary to avoid misleading or confusing the consumer.

Furthermore, to be in line with the wording of the other proposed standard (marjoram).

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

The EUMS have the following comments for 8.1.3:

Suggested sentence: "**The trade name and the scientific name, as described in Section 2.1, may be indicated.**"

Rationale:

- "Listed" seems not to be the most appropriate word and could be replaced by "indicated" to make the sentence read better.
- Other sections like in 8.2.1 do not mention «on the label». Why should it be specified here? In addition, it seems to be redundant as we are under the labelling section.
- The terms used here e.g. variety or cultivar are not mentioned on table 1 of Section 2.1. To prevent confusion and misunderstandings, the terminology should be consistent throughout the standard.

## 8.2 Country of origin and country of harvest

8.2.1 Country of origin shall be declared.

The EUMS suggest the following wording for 8.2.1:

**"The** country of origin shall be declared **indicated"**

Rationale:

"Declared" seems not to be the most appropriate word and could be replaced by "indicated" to make the sentence read better.

**8.2.2** Country of harvest **may be declared** (optional).

The EUMS suggest the following wording:

8.2.2 Country of harvest (optional).

**8.2.3** Region of harvest and year of harvest **may be declared** (optional).

The EUMS suggest the following wording:

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

Rational:

To be consistent with the 2 latest standards adopted (turmeric and all spices).

### **8.3 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).

## **9. METHODS OF ANALYSIS AND SAMPLING**

### **9.1 Methods of analysis**

The methods of analysis highlighted in Table 2: Methods of analysis will be included in CXS 234-1999 after endorsement by CCMAS and the following text will replace the table and will be inserted.

"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)<sup>9</sup> relevant to the provisions in this standard, shall be used."

### **9.2 Sampling Plan**

To be developed.

Table 2: Methods of analysis

The EUMS suggest the amendments as per the track changes in the table below:

Provision	Method <sup>i</sup>	Principle	Type <sup>ii</sup>
Moisture	ISO 939	Distillation	I
Volatile oil (on dry basis)	ISO 939 and ISO 6571	Calculation from moisture and volatile oils <del>Distillation followed by volumetry and distillation</del>	I
Total ash (On dry basis)	ISO 939 and ISO 928	Calculation from moisture and ash (at 550 °C). Distillation and Gravimetry	I
Acid insoluble ash (on dry basis)	ISO 939 and ISO 930	Calculation from moisture and ash (at 550 °C). Distillation and Gravimetry	I
Extraneous matter	ISO 927	Visual examination followed by Gravimetry	I
Foreign matter	ISO 927	Visual examination followed by Gravimetry	I
Whole insect live/dead	ISO 927 (For whole)	Visual examination followed by Gravimetry (counting)	I
	AOAC 975.49 (For powdered/pieces)	Floatation followed by Gravimetry	I
Mammalian and/or other excreta	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macro analytical Procedure Manual) MPM: V-8. Spices	Visual Examination followed by Gravimetry	IV
Visible mould	ISO 927	Visual Examination followed by Gravimetry	I
Insect defiled/ infested / <del>Redent filth</del>	ISO 927	Visual examination followed by Gravimetry	I
Empty and malformed capsules	<del>{IS 13446: 2009 }<sup>iii</sup> and ISO 10622:1997}</del>	Visual examination (counting) followed by Gravimetry	I
Immature and shriveled capsules/seed	ISO 927	Visual examination followed by Gravimetry	I
<del>{Light seeds</del>	ISO 927	Visual examination followed by Gravimetry	I
<del>Insect fragments, whole/dead/live insects</del>	<del>ISO 927</del>	<del>Visual examination (followed by Gravimetry</del>	I

**Notes:**

<sup>i</sup> Latest edition or version of the approved method should be used.

<sup>ii</sup> According to the definition of “types of method of analysis” as per *Codex Procedural Manual* Section 2

<sup>iii</sup> ~~ISO 13446: 2009 is a method of analysis based on an Indian Standard.~~

Table A1: Chemical characteristics for dried or dehydrated large cardamom

The EUMS agree with the values in square brackets, however suggest that the volatile oils in ground/powdered seeds should be 0.7-0.8.

Rationale:

In ground/powdered form the fibres are removed, thus the volatile oil content is lower.

The EUMS suggest using the same terminology for “Form/style” column as listed in 2.2.

The order of parameters should be aligned with the standard of CXS 357-2024 (small cardamom).

The superscript (i) in the heading “volatile oil” should be removed and a general note should be under the table, as it applies to the entire table.

Product Name	Form/style	Moisture content % w/w (max)	Total ash % w/w (max) on dry basis	Acid insoluble ash % w/w (max) on dry basis	Volatile <sup>i</sup> oils ml/100 g (min) on dry basis
Large Cardamom	Whole	[12]	[8]	[2]	[1]
	Seed	[12]	[8]	[2]	[1]
	Ground/powdered seed	[12]	[8]	[2]	[1]/ [0.7 or 0.8]
	Powdered capsules with seeds	[12]	[8]	[2]	[1]

Notes:

<sup>i</sup>-For capsules, the determination of moisture content, total ash and acid insoluble ash shall be made on the whole capsules. The determination of volatile oil shall be made on the seeds obtained by separating skin.

Table [A2]: Physical characteristics for dried or dehydrated large cardamom

The EUMS suggest the following:

- “Foreign matter”: for whole, the value is set too high. The same value should be set as for small cardamom (**0.5 % w/w**).
- “Mammalian excreta”: the values for both whole and seeds should be as low as possible (close to 0). Or the value used in the first EWG consultation (3 mg/kg).

In addition, the EUMS suggest using the same terminology for “Form/style” column as listed in 2.2.

The order of parameters should be aligned with the standard of CXS 357-2024 (small cardamom).

From the column “Immature and shriveled capsules/ seed” the word “seed” should be deleted: “Immature and shriveled capsules/~~seed~~”; the footnote iv. should be changed accordingly to “Capsules which are not “fully developed” ~~or seeds not fully matured or shriveled~~, as the “immature and shriveled seeds” are already covered under footnote v.

The definition of “light seeds” in footnote v. refers to “pale white or uneven discoloration,” which is not included in ISO 10622 (Large cardamom) or ISO 882-2 (Small cardamom). Both ISO standards define light seeds as “brown or red in colour, and broken, immature, or shrivelled seeds”. In ISO 10622, this definition is identical to that in ISO 882-2, which has already been incorporated into CXS 357-2024. Since the ISO standards do not differentiate this defect between species, the EUMS recommend aligning the Codex definition with the ISO definition to maintain consistency and avoid unnecessary differentiation between large and small cardamom.

Product Name	Form/style	Extraneous matter % w/w (max) <sup>i</sup>	Foreign matter % w/w (max) <sup>ii</sup>	Empty and malformed capsule s by count /100 capsule s (max) <sup>iii</sup>	Immature and shriveled capsules/ seed % w/w (max) <sup>iv</sup>	Light seeds % w/w (max) <sup>v</sup>	Whole dead insect, (by count) /100 g (max) <sup>vi</sup>	Live insects (by count) /100 g (max) <sup>vii</sup>	Mould visible % w/w (max)	Mammalian Excreta mg/kg (max) <sup>viii</sup>	Other Excreta mg/kg (max) <sup>ix</sup>	Insect defiled/ infested % w/w (max) <sup>x</sup>
Large Cardamom	Whole	5	5	10	7	NA	4	0	1	6.6	2.2	1
	Seed	2	N/A	N/A	N/A	5	4	0	1	6.6	2.2	N/A
	Ground/powdered seed	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A
	Ground/Powdered capsules with seeds	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A	N/A

Notes:

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- <sup>i</sup> Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product.
  - <sup>ii</sup> Any 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.
  - <sup>iii</sup> Capsules which have no seeds or are scantily filled with seeds.
  - <sup>iv</sup> Capsules which are not “fully developed” or seeds not fully matured or shriveled.
  - <sup>v</sup> [Light seeds include seeds that are pale white or uneven discoloration and broken, immature and shriveled seeds]
  - <sup>vi</sup> If the total number of whole dead insects found in the total number of the sub samples exceed the specified value in the table.
  - <sup>vii</sup> N/A - Not applicable, does not refer to zero. It means that the style of the above product has not been evaluated for this provision and currently do not have values. Live insect present in sample
  - <sup>viii</sup> If the average of the total number of sub-samples exceeds the listed milligram per kg and/or lb.
  - <sup>ix</sup> Excreta from other animals, such as reptiles and birds
  - <sup>x</sup> Capsules and seeds exhibiting definite evidence of insect feeding
- N/A - Not applicable, does not refer to zero. It means that the style of the above product has not been evaluated



## Ghana

### General comment

Ghana thanks Bhutan, Nepal, and India for the leadership in developing the draft standard. We submit the following comments for the advancement of the draft standard.

### 2.2 Styles

Ghana supports the four categories proposed (whole, seed, ground/powdered seed, and whole capsule powder). We recommend removal of the square brackets.

## ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 3.1 Composition

We recommend the deletion of '1' after Annex. The draft standard does not have an Annex 1.

#### Table A1: Chemical characteristics for dried or dehydrated large cardamom

We support the proposed figures in the table.

## Philippines

### Comments at Step 3/4 in reply to CL 2025/52-SCH

Comment Type	Category	Proposed Change	Rationale/Comment
General	Substantive	N/A	The Philippines supports the progression of the document at Step 3/4.

## Thailand

Thailand would like to provide suggestions on this document as follows:

### 1. Section 2.2 Styles

It is our view that only unopened pods or capsules should be used to define the whole style. One-fourth (1/4) opened capsules should be accepted as a specific tolerance for the whole style.