



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

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

(Prepared by the electronic working group chaired by Bhutan and co-chaired by India and Nepal<sup>1</sup>)

**Introduction**

1. At the 7th session of the Codex Committee on Spices and Culinary Herbs (CCSCH7), Bhutan, India and Nepal submitted a joint new work proposal for the development of a standard on large Cardamom.<sup>2</sup> This was a key outcome of the joint Codex Trust Fund 2 project for Bhutan, India and Nepal, a project meeting that was held from 15–16 August 2023 in Thimphu.
2. Based on this proposal, CCSCH7 agreed to start new work and to submit to the 47th session of the Codex Alimentarius Commission (CAC47) for approval of the development of a standard for large cardamom. Furthermore, the CCSCH7 agreed to establish an electronic working group (EWG), subject to the approval by CAC of the work proposal, working in English, to develop a proposed draft standard for large cardamom, chaired by Bhutan and co-chaired by India and Nepal.<sup>3</sup>
3. The Eighty-sixth Session of the Executive Committee of the Codex Alimentarius Commission (CCEXEC86), held in Rome, Italy from 1–5 July 2024, recommended that CAC47 approve the new work on large cardamom. This was followed by approval of the new work proposal at the 47th Session of the Codex Alimentarius Commission (CAC47), held from 25–30 November 2024 in Geneva, Switzerland, reference number CX/CAC 24/47/3, Annex-III with job number N03-2024.

**Terms of reference**

4. CCSCH7, established an EWG to prepare a draft standard for Large Cardamom, chaired by Bhutan and co-chaired by India and Nepal.
5. The EWG was also tasked to use the spices and culinary herbs (SCH) template, in a group format, when preparing the proposed draft standard and to ensure alignment with the already published SCH standards; and to submit its work to the Codex Secretariat at least three months before CCSCH8.

**Participation and methodology**

6. Codex Members and Observers interested in participating in the EWG submitted their nominations in response to the kick-off message that was issued on 28 June 2024. In total, 14 Members, 1 Member Organization and one Observer registered to participate in the EWG including: Brazil, Canada, Chile, Egypt, the European Union, Guatemala, Guyana, India, Indonesia, Japan, Morocco, Saudi Arabia, Thailand, the United Kingdom of Great Britain and Northern Ireland, the United States of America and International Organisation of Spice Trade Association (IOSTA).
7. The EWG worked via the Codex online platform and carried out two rounds of consultations.
8. The first draft document was circulated for comments on 8 July 2024. The comments received during the first round were tabulated, then analyzed and shared on the EWG platform to ensure transparency as well as to facilitate further discussions.

<sup>1</sup> Members of the EWG include: Brazil, Canada, Chile, Egypt, European Union, Guatemala, Guyana, India, Indonesia, Japan, Morocco, Saudi Arabia, Thailand, United Kingdom, United States, and IOSTA.

<sup>2</sup> REP24/SCH – Appendix IX.

<sup>3</sup> REP 24/SCH; paras 93 and 94.

9. Based on the comments received during the first round of consultations, a second draft was prepared and circulated on 02 October 2024. Further 15 days extension was given for commenting and the EWG working group was closed on 17 November 2024.

10. On July 30, 2025, the Codex Alimentarius Secretariat sent out an invitation to all member countries and observers to participate in the review vide review description: CL 2025/52-SCH - Request for Comments at Step 3 on the draft standard for spices in the form of dried fruits and berries – requirements for large cardamom with Bhutan, India and Nepal as Reviewer. Bhutan, India and Nepal have compiled the comments on the draft standard and submitted it to the CCSCH Secretariat for discussion in CCSCH8.

### Summary of discussion

11. The chair of the EWG, Bhutan, carefully evaluated each of the comments received. All editorial comments as well as comments related to ensuring consistency of the draft standard with the SCH template or other SCH standards were accepted, and the changes were affected. However, in cases where the comments lack scientific basis, the comments were not considered for incorporation into the draft standard. An explanation is provided where proposed changes of the draft standard have not been made.

12. The following comments and proposals on the different draft provisions in the draft standard were submitted and considered as follows:

#### 2.1 Product definition

- A proposal to define the product in terms of its level of development i.e. “sufficiently developed” instead of using the description related to its ripening, “nearly ripe” and “ripe fruits”, were put forward. This proposal was accepted noting that cardamom has no pulp or mesocarp or flesh. Similarly, the description of cardamom by color variation i.e. “maroon or light to dark brown” was also accepted and included in the draft standard.
- There was a proposal to include trade names such as Badi elaichi; common names including Bengal cardamom, Greater cardamom, Hill cardamom, Nepal cardamom, Winged cardamom. This proposal was not accepted as this would create regional biases, noting the need to maintain uniformity. Another proposal suggested the inclusion of “white cardamom” and “round cardamom”, however it should be noted that these refer to *Amomum kravanh* or *Amomum compactum*, while the standard applies specifically to *Amomum subulatum* Roxb. only.
- It was also proposed to expand the list of scientific names to include *Amomum costatum*, *Amomum subulatum* and that this would align with the European Spice Association (ESA) List of Culinary Herbs and Spices. This proposal was not acceptable based on the literature referred and also according to SCH latest standard template PART 2 – Non-exhaustive list of spices and culinary herbs, arranged by generic names, large cardamom’s botanical name is reflected as *Amomum subulatum* Roxb only.
- During the review of the comments received on the review description: CL 2025/52-SCH - Request for Comments at Step 3 on the draft standard for spices in the form of dried fruits and berries – requirements for large cardamom, black cardamom has been accepted as the Trade name.

#### 2.2 Styles

- The comments and/or proposals submitted on styles for large cardamom were adopted, leading to the establishment of the following five categories under styles: i) Whole unopened capsules/pods: intact capsules/pods that have not lost seeds, ii) opened capsules/pods: capsules/pods with opening, not exceeding one-fourth (1/4) of the suture’s length and containing seeds iii) seeds: seeds obtained after opening of the capsules/pods, iv) powdered seeds: powder obtained by grinding cardamom seeds v) powdered whole capsules/pods: powder obtained from grinding whole/open capsules/pods with seeds.
- There was a comment stating, in the trade of large cardamom, whole capsules comprising both unopened pods and those up to one-fourth opened with intact seeds are not separated based on the degree of opening. Hence, the style has been defined as “Whole (opened capsules/pods: capsules/pods with opening, not exceeding one-fourth (1/4) of the suture’s length and containing seeds).” As per common trading practices, up to 5% of the capsules may be up to one-fourth opened and are still considered part of the “whole” category.
- 2.3 Sizing (optional) has been incorporated as “Whole large cardamom may be sized by count, per weight, per volume, by diameter, or in accordance with pre-existing trade practice. When sized, the methods used should be labelled on the package” to align with the SCH template.

#### 3.2 Quality factors

3.2.1 General has been deleted from the draft standard to align with the CXS 357-2024 (Standard for spices derived from dried or dehydrated fruits and berries – small cardamom).

### 3.2.2 Odour, flavour and colour

According to ISO 10622, Light seeds include those seeds that are brown or red in colour, and broken, immature and shriveled seeds. However, when monitoring the actual field reality and validating the colour of light seeds, it was observed that the seeds are either pale white or have uneven discoloration. This inconsistency was to be resolved at the CCSCH, however, based on the comments from member countries, the definition for “light seeds” has been aligned with ISO 10622 in the footnote of Table A2.

## 9.1 Methods of analysis

- Method of Analysis for the determination of empty and malformed capsules – The EWG was unable to determine the test methods for empty and malformed capsules. Consequently, the Indian Standard IS 13446: 2009 and ISO Standard ISO 10622:1997 were referenced. However, it is necessary for CCSCH to identify the correct applicable test methods, and therefore this provision has also been kept under square brackets for further consideration.

### Annex I - Table A1 Chemical characteristics for dried or dehydrated large cardamom

- In Annex I - Table A1: Chemical characteristics for dried or dehydrated large cardamom, the values provided are replicated from ISO 10622 and the small cardamom standard. However, EWG members commented that the values are uniform across all styles leading to some discrepancies. Due to lack of literature and concrete data, the chair is not able to make a revision in the proposed draft standard, hence would like to invite expert opinion from the committee. The values were kept in square brackets for powdered seeds and powdered capsule with seeds for further discussion by CCSCH.
- The proposed limit of Acid Insoluble Ash at 2% is supported, as it aligns with the specifications outlined in 10622:1997(E) for both whole capsules/pods and seed forms of large cardamom. This ensures consistency with internationally recognized quality standards.
- The recommendations to adopt different chemical requirements for seeds and whole pods are not supported, as the proposed values are derived from the ISO 10622:1997(E) standard, which applies uniformly to both forms.
- The sequence of column headings in Table A1 and A2 are aligned with the CXS 357-2024 (Standard for spices derived from dried or dehydrated fruits and berries – small cardamom).
- The value for foreign matter %w/w (max) has been changed to 0.5% for whole unopened capsules/pods and whole opened capsules/pods.

## CONCLUSION AND RECOMMENDATION

The chair of the EWG has distributed two draft standards to the members of the EWG for comment, followed by the review invitation sent by the Codex Secretariat vide review description: CL 2025/52-SCH and conducted ongoing discussion with the co-chairs. The main tasks assigned to the EWG to develop a global standard for dried or dehydrated large cardamom has been completed in accordance with the *Codex Procedural Manual*. The draft standard is attached as Appendix 1.

The EWG, chaired by Bhutan and co-chaired by India and Nepal, has completed the task. Within the given time periods, all required information of dried or dehydrated large cardamom has been gathered and comments from the EWG members were carefully evaluated to form the basis of the proposed draft standard.

As we move forward, the Chair respectfully requests that CCSCH8 focus its discussions on the remaining unresolved issues that are critical to finalizing the draft standard. In particular, attention is drawn to **Table 2** method of analysis (non-exhaustive list of provisions) for empty and malformed capsules, where IS 13446:2009 and ISO 10622:1997 has been referenced to the specification standards as we do not have test method in the CCMAS or in ISO for the large cardamom and to **Annex 1-Table A1: Chemical characteristics for dried or dehydrated large cardamom for values in square brackets**. Addressing these key areas will significantly strengthen the scientific and practical basis of the proposed draft standard and ensure it meets the expectations of all stakeholders involved in the global trade of dried or dehydrated large cardamom.

The chair would like to request CCSCH8 to consider the draft standard, with a view to advancing it through the Codex step procedure.

## APPENDIX I

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

## (Step 3)

(Changes to the draft standard from CX/SCH 25/8/4 were shown with blue font.)

## 1. SCOPE

This standard applies to dried or dehydrated fruits and berries- large **cardamom** as defined in Section 2.1 below, offered for direct human 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

Large dried or dehydrated cardamom is a product obtained from sufficiently developed fruits of *Amomum subulatum* Roxb. of the Zingiberaceae family, as described in Table 1, wherein the capsules/pods are ovoid in form with a distinct ribbed surface.

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

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

## 2.2 Styles

Dried or dehydrated large cardamom may be:

- whole unopened **capsules/pods: Intact capsules/pods that have not lost seed;**
- **opened capsules/pods: capsules/pods with opening, not exceeding one-fourth of the suture's length and containing seeds.**
- **seeds: seeds obtained after opening of the capsules/pods;**
- **powdered seeds: powder obtained by grinding cardamom seeds; or**
- **powdered whole capsules/pods: powder obtained from grinding whole/open capsules/pods with seeds.**

Other styles distinctly different from those five are allowed, provided they are labelled accordingly.

## 2.3 Sizing (optional)

**Whole large cardamom may be sized by count, per weight, per volume, by diameter, or in accordance with pre-existing trade practice. When sized, the methods used should be labelled on the package.**

## 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 Odour, flavour and colour

Dried or dehydrated large cardamom shall have a characteristic odour, flavour and colour, which can vary from depending on geo-climatic factors/conditions, and shall be free from any foreign odour, flavour, and colour especially from rancidity and mustiness. **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.**

## 3.2.2 Chemical and physical characteristics

Dried or dehydrated large cardamom shall comply with the chemical and physical characteristics specified in Annex I (Table 1 Chemical characteristics and Table 2 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 **only** 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

**8.1** 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:

### 8.2 Name of the product

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

**8.2.2** The name of the product **shall** include an indication of the style as described in Section 2.2.

**8.2.3** The trade name **shall be indicated**. In addition, scientific names, as described in section 2.1, may be indicated.

### 8.3 Country of origin and country of harvest

**8.3.1** The Country of origin shall **be indicated**

**8.3.2** Country of harvest (optional).

**8.3.3** Region of harvest and year of harvest (optional).

### 8.4 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).

## 9 METHODS OF ANALYSIS AND SAMPLING

### 9.1 Methods of analysis

**Table 2: Methods of analysis (non-exhaustive list of provisions)**

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, Distillation and gravimetry	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 (counting)	I
	AOAC 975.49 (For powdered/pieces)	Floatation	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 /Rodent filth	ISO 927	Visual examination followed by Gravimetry	I
Empty and malformed capsules	[IS 13446: 2009 and ISO 10622:1997]	Visual examination (counting)	I
Immature and shriveled capsules/seed	ISO 927	Visual examination followed by Gravimetry	I
[Light seeds]	ISO 927	Visual examination followed by Gravimetry	I
Insect fragments	ISO 927	Visual examination (counting)	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

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

## 9.2 Sampling Plan

To be developed.

### Annex I

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

Product Name	Form/Style	Total ash % w/w (max) on dry basis	Acid insoluble ash % w/w (max) on dry basis	Moisture content % w/w (max)	Volatile oils ml/100 g (min) on dry basis
Large Cardamom	Whole*	8	2	12	1
	Seeds	8	2	12	1
	Powdered seeds	[8]	[2]	[12]	[1]
	Powdered capsules with seeds	[8]	[2]	[12]	[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 and [shall not apply to powdered capsules with seeds](#).

\*Includes opened capsules/pods

## Annex I

Table A2: Physical characteristics for dried or dehydrated large cardamom

Product Name	Form/style	Empty and malformed capsules by count /100 capsules (max) <sup>4</sup>	Immature and shriveled capsules/seed % w/w (max) <sup>5</sup>	Light seeds % w/w (max) <sup>6</sup>	Insect defiled/infested % w/w (max) <sup>7</sup>	Extraneous matter% w/w (max) <sup>8</sup>	Foreign matter % w/w (max) <sup>9</sup>	Whole dead insects, (by count) /100 g (max) <sup>10</sup>	Live insects (by count) /100 g (max) <sup>11</sup>	Mammalian Excreta mg/kg (max) <sup>12</sup>	Other Excreta, mg/kg (max) <sup>13</sup>	Mould visible % w/w (max)
Large Cardamom	Whole unopened capsules/pods	10	7	NA	1	5	0.5	4	0	6.6	2.2	1
	Whole opened capsules/pods	10	7	NA	1	5	0.5	4	0	6.6	2.2	1
	Seeds	N/A	N/A	5	N/A	2	N/A	4	0	6.6	2.2	1
	Powdered seeds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
	Powdered capsules/pods with seeds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A

<sup>4</sup> Capsules which have no seeds or are scantily filled with seeds<sup>5</sup> Capsules which are not "fully developed".<sup>6</sup> Light seeds include seeds that are brown or red in color, and broken, immature and shriveled seeds<sup>7</sup> Capsules and seeds exhibiting definite evidence of insect feeding<sup>8</sup> Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product.<sup>9</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>10</sup> If the total number of whole dead insects found in the total number of the sub samples exceeds the specified value in the table.<sup>11</sup> Live insect present in sample<sup>12</sup> If the average of the total number of sub-samples exceeds the listed milligram per kg and/or lb.<sup>13</sup> Excreta from other animals, such as reptiles and birds

N/A 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.