



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

**Second Session**

**Goa, India, 14 – 18 September 2015**

**PROPOSED DRAFT STANDARD FOR CUMIN**

**Comments at Step 3**

**Comments of Argentina, Chile, Cote d'Ivoire, Djibouti, Ethiopia, Gabon, Guinea, India, Kenya, Mali, Mauritania, Senegal and the United States of America**

**ARGENTINA**

**Point 3.2.4.** Argentina has studied the proposal and it proposes the following values

Grade	Extraneous matter <sup>1</sup> content, max. % mass fraction	Foreign matter <sup>2</sup> content, max. % mass fraction	Proportion of damaged/defective fruits <sup>3</sup> , max. % mass fraction	Insect-damaged matter, max. % mass fraction	[Seeds with stalks % mass fraction]
I	1	0,3	3	1	8
II	2	0,5	5	1	8
III	3	0,7	7	1	8

**Justification:** The values are considered to be more frequent in trade and they are also referred in international trade norms such as ISO.

**Table 3.2.5.** Chemical Characteristics: Argentina agrees to establish a parameter for Cuminaldehyde.

**CHILE**

The Proposed Standard for Cumin has been revised and the following comments have arisen from it.

In 2.1 Product Definition, we believe the definition used in letter a) is ambiguous, since it considers the concept of “having reached appropriate development for processing” without defining it. This is subject to interpretations; therefore we suggest defining it with clear parameters.

**COTE D'IVOIRE, GABON, GUINEA, MALI, MAURITANIA AND SENEGAL**

We support the work for development a standard for cumin, taking into consideration, the comments on scope as outlined below.

**Scope**

We propose amendment of the scope, such that it reads as follows: “This standard covers the dried fruit of *Cuminum cyminum* L. f the *Apiaceae* family offered for industrial food production and for direct human consumption”

For the sake of clarity, add the word “human”, to read “human consumption”.

**3.2.1 Odor, flavor and color**

We propose amendment of the text as follows: “Cumin shall have a strong and aromatic odor and flavor characteristic to Cumin”.

The mention “Cumin aldehyde” can be misleading as cumin odor and flavor may be attributed to a source other than aldehyde.

## Contaminants 5.2

We propose amendment to the text to read “The products covered by this standard should comply with the maximum residue limits for pesticides established by the Codex Alimentarius” [and/or veterinary drugs”].

The veterinary drug residue is not applicable to this standard. Put in square bracket.

### DJIBOUTI AND ETHIOPIA

Djibouti and Ethiopia support the work to develop a standard for Cumin taking into consideration, the comments on scope as outlined below.

#### Scope

Djibouti and Ethiopia propose amendment of the scope to read “This Standard applies to dried fruits of *Cuminum cyminum* L. of the *Apiaceae* family offered for industrial food production and for direct human consumption.....” i.e. Include the word “human” to read “human consumption” for clarity.

#### 3.2.1 Odour, flavour and colour

Djibouti and Ethiopia propose amendment to read “Cumin shall have a strong and aromatic odor and flavour characteristic to Cumin” i.e. Inclusion of “Cumin aldehyde” is misleading as cumin odor and flavour may be attributed to other sources other than aldehyde.

## Contaminants 5.2

Djibouti and Ethiopia proposes amendment to read as “The products covered by this standard shall comply with the maximum residue limits for pesticides established by Codex Alimentarius Commission”. “[and/or veterinary drugs” ].

Veterinary drug residue is not applicable to this standard. Put in square bracket.

### INDIA

#### SPECIFIC COMMENTS:

- **Section 3.2.1 Odour, flavour and colour**

(i) Cumin shall have a characteristic colour varying from ocher gray to light brown.

**Comment:** Description of colour may be removed from the Standard. Or else, colour photographs of cumin of various colours from different origins may be included to avoid ambiguities.

**Rationale:** Cumin with darker shades of brown is also present. Colour varies for different varieties of cumin grown in different countries. This may not be an important quality parameter for setting a standard.

- **Section 3.2.2 Infestation**

It is given as “Cumin should be practically free of dead insects” but at the same time, in Section 3.2.4 Physical characteristics, maximum limits for dead insects is given and inclusion of a column in Table 1 for this parameter is accepted by eWG members. In Section 3.2.2, a reference of Table from Section 3.2.4, could be included.

- **Section 3.2.4 Physical Characteristics**

(ii) In Table 1, the 3<sup>rd</sup> column “proportion of damaged/defective fruits” and 4<sup>th</sup> column “Insect damaged matter” of physical characteristics could be unified as a single column. A provision for mammalian excreta, insect fragments and rodent contamination could be included.

(iii) In international trade, cumin seeds with smaller size with less development are desired by importers in Singapore and Dubai. Bigger sized cumin with full development is desired by European and specifically importers in London. During trade negotiations, smaller cumin is termed as “Singapore / Dubai” quality and bigger cumin is termed and accepted as “Europe or London” quality. These aspects could be considered.

The following parameters are proposed in section 3.2.4 Physical Characteristics:

Class/Grade	Extraneous matter <sup>1</sup> content, max. % mass fraction	Foreign matter <sup>2</sup> content, max. % mass fraction	Proportion of damaged/defective fruits <sup>3</sup> , max. % mass fraction	Insect-damaged matter <sup>4</sup> , max. %mass fraction	Fruits with stalks (% mass fraction)
I	1	0,5	3	0,5	6
II	2	0,5	5	1	8
III	3	0,7	5	1	8

**Table 1.** Physical requirements for whole cumin.

### Section 3.2.5 Chemical Characteristics

Parameter	Requirement for grade, whole cumin			Requirement for ground or cracked cumin
	I	II	III	
Moisture, % mass fraction, max.	9	10	12	12
Total ash, % mass fraction (dry basis), max.	8,5	10	12	9,5
Acid-insoluble ash, % mass fraction (dry basis), max.	1,5	3	4	1,5
Non-volatile ether extract, % mass fraction (dry basis), min.	15	15	12	15
Volatile oils, ml/100 g (dry basis), min.	2	1,5	1,5	1,3
<del>[Cumin aldehyde content (rel % in volatile oil) min.]</del>	<del>[12]</del>	<del>[8]</del>	<del>[3]</del>	

**Table 1.** Chemical requirements for whole and ground cumin.

- 1) Volatile oil content for cumin may vary depending upon harvesting season. More scientific references could be applied for fixing Volatile oil content in both whole and ground cumin.
- 2) The parameter "cuminaldehyde content" could be removed as it comes under "Volatile oil content".

## KENYA

### Scope

This Standard applies to the dried fruits of *Cuminum cyminum* L. of the *Apiaceae* family intended for ~~offered for industrial food production and for~~ food processing and 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.

### Comment on scope

Kenya would propose to modify the "SCOPE" mentioned above as follows:

*This Standard applies to the dried fruits of Cuminum cyminum L. of the Apiaceae family intended for food processing and direct consumption for repackaging if required. It does not apply to the product when intended for further processing.*

## 2. Description

### 2.1 Product definition

Cumin is the product:

- (a) prepared from fruits of *Cuminum cyminum* L. having reached appropriate development for processing; and

~~(b) processed in an appropriate manner, undergoing operations such as drying, grinding, sifting and cleaning.~~

**COMMENT ON 2.1:** We propose to also remove the number '(a)' and join the sentence with the first phrase under 'PRODUCT DEFINITION'

We therefore would propose '**PRODUCT DEFINITION**' introductory sentence to read as follows: ***Cumin is the product prepared from fruits of *Cuminum cyminum* L. having reached appropriate development for processing.***

We also remove numbering '(b)' to be under "STYLES" as an introductory sentence under 'STYLE'

### 3. Styles

**Comment:** *Cumin can be processed in an appropriate manner, undergoing operations such as drying, grinding, sifting and cleaning.*

**Cumin may be offered in one of the following styles:**

- a) Whole
- b) Ground
- c) Cracked

#### 3.2.4 Physical Characteristics

Whole cumin shall comply with the physical requirements as specified in Table 1.

Comments on Table 1

CLASS/GRADE	Extraneous matter content max% mass fraction.	Foreign matter content	Proportion of damaged/defective fruits, max. % mass fraction	Insect damaged matter, max % mass fraction	[Fruits with stalks] [%mass fraction]
1	1 [0.5]	0.5 Practically absent	5 [2][3]	1 [0.5]	8
11	2	0.5	5	1	8
111	3	0.5	5	1	8

***Fruits with stalks row should be deleted because cumin comes from fruits and stalks should be classified under Extraneous matter.***

**JUSTIFICATION: *The figures we have indicated in the table are common practice in Kenya and we have not been having trade problems.***

#### CHEMICAL CHARECTERISTICS

Parameter	Requirement for grade, whole cumin			Requirement for ground or cracked cumin
	1	11	11	
				REQUIREMENT
MOISTURE	9	10	12	12
Total ash, % mass fraction (dry basis), max	8.5	10	12	9.5
Acid-insoluble ash, % mass fraction (dry basis), max.	1.5	3	4	1.5
Non-volatile ether extract, % mass fraction (dry basis), min.	15	15	12	15
Volatile oils, ml/100 g (dry basis), min	2	1.5	1.5	1.3
<b>[Cumin aldehyde content (rel % in volatile oil) min.]</b>	[12]	[8]	[3]	12

**COMMENT ON [Cumin aldehyde content]** *The impact compounds of the volatile oil of cumin unripe, ripe and fully ripe fruits can vary from 14.1, 17.5 and 11.4 % respectively differences in the composition of the oils besides other factors appear to be the maturity of the cumin fruit. We would propose the maximum aldehyde content to be 12 % of the mature cumin.*

## Justification:

There is need to harvest cumin at the mature stage for the purpose of complying with the chemical composition required and trade quality products.

### UNITED STATES OF AMERICA

The United States of America supports the efforts and activities of CCSCCH developing standards to facilitate international trade. The U.S. reminds the CCSCCH that the standards being developed must reflect international trade practices. Hence, the CCSCCH should always be guided by the Procedural Manual of the Codex Alimentarius Commission and pay close attention to Article I (a) “*protecting the health of the consumers and ensuring fair practices in the food trade*”

## Specific Comments:

## 2.2 STYLES

Issue and rationale: The three styles should be precisely defined. The definition will additionally provide differentiation between the non –whole styles.

U.S. Proposal: The U.S. proposes the text language used in this section of the draft standard for BWG pepper for ground cumin.

Cumin may be offered in one of the following styles

(a)Whole- intact whole dried cumin seed

(b)Cracked /crushed – cracked/crushed cumin seed that are retained by a sieve of a nominal aperture size of 500 µm

(c)Ground- ground cumin seed that will pass completely through a sieve of nominal aperture size 500 µm

### 3.2.1 Odor, flavor and color:

Issue and Rationale: The last sentence indicates that “Cumin shall have characteristic gray to light brown color”. However, (i) dried cumin color ranges from greenish yellow, grayish or light brown and (ii) there is no internationally accepted color guides for dried cumin that take into consideration geo-climatic condition and other factors such as method of drying-that influence color. Therefore, precisely certifying characteristic color” should not be a requirement of the standard.

U.S. Proposal: The U.S recommends deletion of the last sentence

### 3.2.2 Infestation

Issue and Rationale: The proposed text of this section is very normative- allowing every user and/or country to define the limits of infestation allowed. This defeats the purpose of an international harmonized standard. Replacing the normative text with agreed numerical values based on science and trade practices is more precise and facilitates uniform international application of the standard.

U.S. Proposal: The U.S. recommends replacing the paragraph with the following table:

Infestation Defect	Maximum Tolerance
Whole dead insects,	8 per kg
Insect defiles/infested (whole cumin)	1.0 percent by weight
Other insect damage - including Frass/excreta/fragments/filth	11 mg per kg
Mammalian contamination/excreta	6 mg per kg
Mold	1.0 percent by weight
Extraneous/foreign matter*	0.5 percent by weight

### 3.2.4 Physical Characteristics & 3.2.5 Chemical Characteristics

Issue and Rationale: The values within Tables 1 on Physical Characteristics and Table 2 Chemical Characteristics for whole cumin should reflect global trade and regulatory practices and should be scientifically validated. They should not impose unwarranted new requirements on trade or become impediments to trade.

U.S. Proposal: Based on the most widely used global trade and regulatory practices the U.S. recommends the following values in both tables:

Table 1 Physical Requirements

Class/Grade	Extraneous matter <sup>1</sup> content, max. % mass fraction	Foreign matter <sup>2</sup> content, max. % mass fraction	Proportion of damaged/defective fruits, max. <sup>3</sup> % mass fraction	Insect-damaged matter, max. <sup>4</sup> % mass fraction	[Seeds with Stalks] %mass fraction
I	0,5	0.5	2	0.5	8
II	1	0.5	2	0.5	8
III	2	0.5	2	0.5	8

In whole cumin, proportion of stalks with dimensions exceeding 7 mm in length and 2 mm in diameter shall not be more than 5 % (m/m)

Table 2 Chemical Requirements for Cumin.

Parameter	Requirement for grade, whole cumin			Requirement for ground or cracked cumin
	I	II	III	
*Moisture, % mass fraction, max.	9	9	9	9
Total ash, % mass fraction (dry basis), max.	8.5	10	12	9.5
Acid-insoluble ash, % mass fraction (dry basis), max.	1.5	3	4	1.5
Non-volatile ether extract, % mass fraction (dry basis), max. [min]	2	1.5	1.5	1.3

\* The moisture content for whole dry cumin should have having a single maximum value of 9.0 percent irrespective of the class/grade or style.

## 8.2 Name of the Product

Issue and Rationale: The standard should allow traders to voluntarily place the word “cultivated, organic or wild” before or after the word cumin to provide information to consumers and/or differentiate their product in the marketplace.

U.S. Proposal: The U.S. proposes amending sub-section 8.2.1 as follows:

8.2.1 The name of the product shall be “cumin”; [and optionally, the method of production i.e. “cultivated, organic or wild”]

## Identification of Country of origin/harvesting

Issue and Rationale: The country of harvest is necessary for whole cumin. Ground and/or cracked cumin becomes the product of the country where the transformation takes place; hence the trade may optionally indicate the country of origin of the whole cumin used.

U.S. Proposal: The U.S. recommends the inclusion of a new subsection 8.2.4: as follows:

8.2.4 The country of harvesting must be indicated for whole cumin; optionally for ground or cracked cumin.

<sup>1</sup> All matter which does not constitute cumin fruits, in particular all other seeds and all other extraneous vegetable matter visible to the naked eye (corrected, if necessary, for abnormal vision)

<sup>2</sup> Any visible and/or apparent matter or material not usually associated with the product e.g. extraneous animal or mineral matter visible to the naked eye (corrected, if necessary, for abnormal vision).

<sup>3</sup> Damaged, Discolored, Shriveled and Immature seeds.

<sup>4</sup> Cumin seed that are damaged or discoloured so as to affect the quality of the materials and also included seeds showing signs of bores in the seeds as a result of their having been eaten by weevils or insects.