



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

Sixth Session

26-30 September and 3 October 2022

**PROPOSED DRAFT STANDARD FOR DRIED OR DEHYDRATED CHILLI PEPPERS AND
PAPRIKA**

(Prepared by the Electronic Working Group chaired by India)

(Step 3)

Codex members and Observers wishing to submit comments at Step 3 on the draft standard for dried or dehydrated chilli peppers and paprika (Appendix 1) should do so as instructed in **CL 2022/27/OCS-SCH** available on the Codex webpage/Circular Letters: <http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>

Introduction

1. The Electronic Working Group (EWG) for Dried or Dehydrated Chilli Peppers and Paprika was established by Codex Committee on Spices and Culinary Herbs at its 3rd Session (CCSCH3, 2017). During the CCSCH5 (2021), held virtually, the draft submitted was discussed, since consensus was not reached during the session, CCSCH5 decided to return the proposed draft standard for dried or dehydrated chilli peppers and paprika at Step 2/3 for further consideration.

Terms of Reference

2. CCSCH5 agreed to establish an EWG chaired by India and working in English only, to redraft the document taking into account comments submitted at the session, for circulation for comments at Step 3.

Participation and methodology

3. The EWG worked through the Codex online forum, in which 16 countries and 1 observer organization comprising total of 28 members registered in the online forum. The EWG started its work during Dec 01, 2021, during which 1st draft was made available through the online forum. In the first circulation, 8 member countries and 1 observer organization commented on the draft. The comments were compiled and 2nd draft was floated on Mar 10, 2022. After the second circulation, 7 member countries and 1 observer organization responded with comments. On the whole, the draft was circulated for 2 rounds of consultation to the EWG members and totally 12 member countries and 1 observer organization actively participated in the EWG.

Summary of discussion

4. In Table 2 - Chemical requirements, consensus could not be reached for the parameters: moisture and pungency. Though during CCSCH5, it was decided to keep the value of pungency for chilli peppers and paprika as ≥ 900 and < 900 SHU respectively, during the EWG many countries proposed that the value be ≥ 450 and < 450 SHU. Apart from this, under Table 3 - Physical requirements the parameters for: mould damage, insect filth and rodent filth countries have proposed different methodologies resulting in different units of measurement and values.

5. In Tables 2 and 3, there was majority support for the deletion of the square brackets for the following parameters: total ash, mammalian excreta, extraneous matter and foreign matter; therefore, values for these parameters under the square bracket were removed.

6. A member country also commented to develop a sampling plan under serial number 9.2, which may be taken up by CCMAS. Since the sampling plan for all spice commodity need to be discussed and a common sampling plan may be developed.

Conclusions and recommendation

7. The draft was prepared based on the comments received; still outstanding issues were not resolved with respect to table 2 and table 3. The Proposed Draft requires further discussions on the physical and chemical properties in order to reach consensus.

8. CCSCH6 is invited to consider the Proposed Draft Standard for Dried or Dehydrated Chilli Peppers and Paprika attached as **Appendix I**, with the view to progress it through the Codex step procedure.

APPENDIX I

**PROPOSED DRAFT STANDARD FOR DRIED OR DEHYDRATED CHILLI PEPPERS AND
PAPRIKA
(at Step 3)**

1 SCOPE

This Standard applies to dried or dehydrated chilli peppers and paprika as defined in section 2.1, 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**

2.1.1 Dried or dehydrated chilli peppers or/and paprika is the product obtained from drying the fruits/pods of plants mentioned in table 1, with or without seeds or stalks and processed in an appropriate manner.

Table.1. Dried or dehydrated chilli peppers and paprika covered by this standard

Common Name [Trade Name]	Scientific Name*
Paprika / Pimentón	<i>Capsicum annuum</i> L.
Chilli peppers / Cayenne / Cayenne Peppers Chile or Ají / Hot Peppers	<i>Capsicum annuum</i> L.,
	<i>Capsicum frutescens</i> L.,
	<i>Capsicum baccatum</i> var. <i>pendulum</i> (Willd.) Eshbaugh,(synonym of <i>Capsicum frutescens</i> L.)
	<i>Capsicum chinense</i> Jacq.,
	<i>Capsicum pubescens</i> Ruiz & Pav

2.2 Styles

Chilli peppers and paprika may be

- Whole
- Crushed/Cracked/broken/Flaked
- Ground/powdered

Ground chilli peppers or/and ground paprika is the product obtained by grinding whole dried chilli peppers or paprika with or without variant proportions of pericarp, placenta, seeds, pedicel and calyx without any other added matter. Ground chilli peppers may vary in colour from pale white to deep red according to the species/varieties. Ground paprika may vary in colour from orange to red according to the species/varieties. Ground seeds in paprika increases the pungency. Ground calyx, stalk and seeds in paprika result in the finished product having brown and white particles which detract from the appearance.

Other styles distinctly different from above mentioned styles are allowed, provided they are labelled accordingly.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1 Composition**

Dried or dehydrated chilli peppers or/and paprika as described in section 2 above shall conform to requirements set in Annexes I and II.

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 or colour especially from rancidity and mustiness. The product shall be free from any adulteration.

3.2.2 Chemical and Physical requirements

Dried or dehydrated chilli peppers and paprika shall comply with the requirements given in Annexes I and II. The defects allowed must not affect the general appearance of the product as regards to its

quality, keeping quality and presentation in the package.

3.2.3 Classification (Optional)

The classification of dried chilli peppers and paprika is optional.

In accordance with the Chemical and Physical Characteristics in Annexes I and II, whole or ground paprika may be classified into the following classes:

- a) Extra class
- b) Class I / Grade I
- c) Class II / Grade II

When dried or dehydrated paprika is traded as unclassified, the provisions for physical and chemical characteristics applicable to class II / Grade II apply as minimum requirements.

[3.2.4 Sizing (Optional)]

Dried whole chilli peppers and paprika may be sized by length or in accordance with existing trade practices. When sized the method used should be indicated on 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 powdered form of the foods conforming to this standard.

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), *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.

6 HYGIENE

6.1 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 on Spices and dried culinary herbs and other relevant Codex texts.

6.2 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 Pre-packaged 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 Sections 2.1.1.]

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

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

8.3 Country of origin and country of harvest

8.3.1. Country of origin shall be declared.

8.3.2. Country of Harvest (optional)

8.3.3. Region of harvest and Year of harvest (optional)

8.4 Commercial Identification

- Class/Grade, if applicable
- Size for whole style (optional)

8.5 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 Analysis¹**

As described in Annex III, Table 4.

9.2 SAMPLING PLAN

To be developed.

¹ 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.

ANNEX I

Table 2. Chemical Requirements of Dried or Dehydrated Chilli Peppers and Paprika

Product	Styles	Class / Grade	Moisture % w/w (max)*	Total ash (dry basis) %w/w (max)	Acid insoluble ash (dry basis) % w/w (max)	Pungency Scoville Heat units	Colour Value ASTA Colour Units (min)
Chilli peppers	Whole	N/A	11 [12]	10	1.6	≥900 [≥450]	N/A
	Crushed/Cracked/broken	N/A	11[12]	10	1.6	≥900 [≥450]	N/A
	Ground	N/A	11[12]	10	1.6	≥900 [≥450]	N/A
Paprika	Whole	Extra	11[12]	10	1.3	<900 [<450]	120
		I	11[12]	10	1.6	<900 [<450]	100
		II	11 [12]	10	1.6	<900 [<450]	80
	Crushed/Cracked/broken	NA	11[12]	10	1.6	<900 [<450]	80
	Ground	Extra	11 [12]	10	1.6	<900 [<450]	120
		I	11[12]	10	1.6	<900 [<450]	100
		II	11[12]	10	1.6	<900 [<450]	80

*Some dried whole chilli peppers have specific moisture contents e.g. Ancho Mulato-12.5%, Guajillo Pasilla-13.5%

ANNEX II

Table 3. Physical Requirements of Dried or Dehydrated Chilli Peppers and Paprika

Product	Styles/ Form	Classes / Grade	Mammalian Excreta or/and other ¹ mg/kg (max)	Mould damaged % w/w (max) [% count]	Insect defiled/ Infested% w/w (max)	Extraneous Matter ² % w/w (max)	Foreign matter ³ % w/w (max)	Insect filth % w/w (max) [Fragments/25g (max)]	Rodent filth hairs % w/w (max) [/25g (max)]	Live insects Count/100g
Chilli peppers	Whole	N/A	1	3[1]	1 [3]	1	0.5	N/A[0]	N/A[0]	0
	Crushed/Cracked/broken	N/A	N/A	N/A	N/A	N/A	N/A	N/A[0]	N/A[0]	0
	Ground	N/A	N/A	20 ⁵	N/A	N/A	N/A	[NA] [50]	[NA] [6]	0
Paprika	Whole	Extra	1	Nil	0.5	1	0.1	[NA] [0] [0.1]	[NA] [0] [0.1]	0
		I	1	1	1	1	0.5	[NA] [0] [0.5]	[NA] [0] [0.5]	0
		II	1	1 [3 ⁴]	1 [3]	1	0.5	[NA] [0] [0.5] [NA] [10]	[NA] [0] [0.5] [8]	0
	Crushed/Cracked/broken	N/A	N/A	N/A	N/A	N/A	N/A	[NA][0][30]	[NA][0][8]	0
	Ground	N/A	N/A	20 ⁵	N/A	N/A	N/A	[NA][0][75]	[NA][0][11]	0

¹Excreta from other animals, such as reptiles and birds.

² Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product.

³ 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.

⁴,Mold damage combined with insect infested

⁵This doesn't mean the product could be 20% moldy it means that mold filaments can be observed in 20% of the fields examined using Howard Mold Count

NA= Not applicable at this time and may change

ANNEX III

Table 4. Method of Analysis

Parameter [Provision]	Method ¹	Principles	Type ²	Unit
Moisture	ISO 939	Distillation	I	%(w/w)
Total Ash (dry basis)	ISO 939 ISO 928	Distillation Gravimetry	I I	%(w/w)
Acid-insoluble ash (dry basis)	ISO 939 ISO 930	Distillation Gravimetry	I I	%(w/w)
Pungency Scoville units	ISO 3513	Sensory evaluation (Taste)	IV	Scoville Heat Unit
Natural colouring matter	ISO 7541	Spectrophotometry	IV	ASTA colour unit
Mammalian excreta	ISO 9273	Visual examination followed by Gravimetry (whole/pieces)	I	mg/Kg
Mold damage	MPM V-8 Spices, Condiments, Flavours and Crude Drugs A. General methods for spices herbs and botanicals (V 32)	Visual Examination (for whole)	IV	%(w/w) or count
[Howard Mould Count	AOAC 945.94	Microscopic Examination]	I	
Insect Damage	MPM V-8 Spices, Condiments, Flavours and Crude Drugs A. General methods for spices herbs and botanicals (V 32)	Visual Examination	IV	%(w/w)
Extraneous vegetable matter ³	ISO 927	Visual Examination followed by Gravimetry	I	%(w/w)
Foreign matter ⁴	ISO 927	Visual Examination followed by Gravimetry	I	%(w/w)
Insect filth	US FDA MPM V-8 Spices, Condiments, Flavours and Crude Drugs - A.General methods for spices herbs and botanicals (V 32) [Ground Chilli AOAC 978.22) Ground Paprika (AOAC 977.25B)]	Visual Examination	IV	% w/w (max) [Fragments/25g (max)]
Rodent filth	ISO 927	Visual examination followed by Gravimetry	IV	Count
Live insect	ISO 927 AOAC 960.51	Visual Examination	IV	Count

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

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

³ Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product.

⁴ 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.

APPENDIX II**LIST OF PARTICIPANTS**

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