



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

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PROPOSED DRAFT STANDARD FOR DRIED OR DEHYDRATED CHILLI PEPPER AND PAPRIKA
(Prepared by the Electronic Working Group chaired by India)

(At Step 3)

Codex members and Observers wishing to submit comments at Step 3 on this draft should do so as instructed in CL 2021/08/OCS-SCH available on the Codex webpage/Circular Letters 2021: <http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>

INTRODUCTION

The Codex Committee on Spices and Culinary Herbs at its 3rd Session (CCSCH3 2017) agreed to establish an electronic working group (EWG) led by India and Argentina working in English to develop Group Standard for “Dried Fruits and Berries” based on the following Commodities - Dried Chilli and Paprika for circulation for comments at Step 3 and consideration at CCSCH4.

The report of the EWG including the Proposed Draft Standard was discussed by the CCSCH4¹. However, there was a lack of consensus regarding the applicable values for many of the specifications for the chemical and physical properties to be included in the annexes to the Proposed Draft Standard. In light of this, the Committee, decided to return the proposed draft standard for dried or dehydrated chilli pepper and paprika at Step 2/3 for further consideration.

TERMS OF REFERENCE

CCSCH4 further agreed to establish an EWG chaired by India and working in English only, to redraft the document for circulation for comments at Step 3².

PARTICIPATION AND METHODOLOGY

Sixteen Members and one observer participated in the EWG, and three rounds of consultations were undertaken using the EWG Platform. The first draft was circulated in September 2019 and comments were provided by three Member countries. A second draft was circulated in February 2020 and only one Member country provided comments. Finally, a 3rd draft was circulated in September 2020, on which six Member countries provided their comments.

SUMMARY OF DISCUSSION

There was consensus on most of the sections of the Proposed Draft Standard, however some variance in comments was observed on the values within chemical and physical requirements provided in Annexes I and II, respectively.

In the scope of the draft standard, a Member country requested to remove the sentence “It excludes the product for industrial processing”, but the sentence was included based on the decision of CCSCH3³

New parameters were added to the Chemical and Physical requirements provided in Annexes I and II. These include Capsaicin content under chemical requirements, and insect filth and rodent filth under Physical requirements. Some Members requested to add classes for whole chilli pepper, however, no values or reference methods for the same were suggested, therefore these have not been included in the draft.

The Proposed Draft Standard has been prepared based on comments received at CCSCH4 and the comments received during the three rounds of consultations and is attached as Appendix I to this report.

CONCLUSIONS AND RECOMMENDATION

The Proposed Draft requires further discussions on the physical and chemical properties from Member countries to reach consensus.

CCSCH5 is invited to consider the Proposed Draft Standard at Step 3 attached as Appendix I, with the view to progress it through the Codex step procedure.

¹ REP19/SCH, para 54, (i)

² REP19/SCH, para 54, ii)

³ REP17/SCH para 12 (d).

APPENDIX I

PROPOSED DRAFT STANDARD FOR DRIED OR DEHYDRATED CHILLI PEPPER AND PAPRIKA

1 SCOPE

This Standard applies to chilli pepper and paprika in their dried or dehydrated form, defined in section 2.1, to be offered as such for the consumer, as an ingredient in food processing, or for repacking if required. It excludes the product for industrial processing.

2 DESCRIPTION**2.1 Product Definition**

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

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

Common Name	Scientific Name*
Chilli pepper / paprika	<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

*As per International Plant Names Index (IPNI) - www.ipni.org

2.2 Styles/forms

Chilli pepper and paprika may be

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

Ground chilli pepper or/and ground paprika is the product obtained by grinding whole dried chilli pepper or paprika with or without the placenta, seeds, calyx and stalk without any other added matter

Ground chili pepper 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

The ground product may be of any particle size, according to agreement between the trading parties concerned.

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 pepper or/and paprika as described in section 2 above shall conform to requirements set in Annex I and II.

3.2 Quality Factors**3.2.1 Odour, flavour and colour:**

The product shall have a characteristic odour, colour and flavour, which can vary depending on geo-climatic factors/conditions/varieties 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 Physical and Chemical characteristics

Dried or dehydrated chilli peppers and paprika shall comply with the requirements given in Annex 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 chili peppers and paprika is optional.

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

- a) Class I
- b) Class II
- c) Class III

When dried or dehydrated chilli peppers and paprika is unclassified, the provisions for physical and chemical characteristics applicable to class III apply as minimum requirements

3.2.4 Sizing (Optional)

Dried whole chili 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

3.3 Classification of "Defectives"

A container/sample that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 should be considered as "defective".

3.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.2 when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number (c) of the appropriate sampling plan. The contents of each package must be uniform and contain only product of the same origin, variety, cultivar or trade name, quality and size.

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 chilli pepper / paprika only.

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).

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 name of the product shall be as described in Sections 2.1.1.

8.2.2 The 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/country of harvest

8.3.1 Country of origin shall be indicated and the country of harvest, region of production may be indicated.

[8.3.1.1 If there is more than one country of harvest may be indicated using the legend and /or.]

8.3.2 Year of harvest (optional)

8.4 Commercial Identification

- Class/Grade, if applicable
- Size (optional)

8.5 Inspection mark (optional)**8.6 Labelling of Non-Retail Containers**

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

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.

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

ANNEX I

Table 2. Chemical Properties for Dried or Dehydrated Chilli Pepper and Paprika

Product	Styles/ Form	Classes	Chemical Properties					
			Moisture % w/w (max)	Total ash (dry basis) %w/w (max)	Acid insoluble ash (dry basis) % w/w (max)	[Pungency Scoville units	Capsaicin content (in mg/kg)	Colour Value ASTA Colour Units (min)
Chilli pepper	Whole	NA	11 [12]	10	1.6	≥900 [≥ 450]	≥ 60 [≥30]	NA
	Crushed/Cracked/broken	NA	11[12]	10	1.6	≥900 [≥ 450]	≥60 [≥ 30]	NA [60]
	Ground	NA	11 [12]	10	1.6	≥900 [≥ 450]	≥60 [≥ 30]	NA [60]
Paprika	Whole	Class I	11	8	1.3	<900 [< 450]	< 60 [<30]	120
		Class II	11	8	1.6	<900 [< 450]	< 60 [< 30]	100
		Class III	11 [12]	8.5 [10]	1.6	<900 [< 450]	< 60 [< 30]	80
	Crushed/Cracked/broken	NA	11	8 [10]	1.6 [3]	<900 [< 450]	< 60 [< 30]	80 [60][70]
	Ground	Class I	11 [12]	8 [10]	1.6 [1.3] [3]	<900 [< 450]	< 60 [< 30]	80 [60][120]
		Class II	12	8	1.6	<900 [< 450]	< 60 [< 30]	100
Class III		12	10	1.6	<900 [< 450]	< 60 [< 30]	80	

ANNEX II

Table 3. Physical Properties for Dried or Dehydrated Chilli Pepper and Paprika

Product	Styles/ Form	Classes	Physical Properties					Insect filth % w/w (max) [Fragments/25g (max)]	Rodent filth hairs % w/w (max) [25g (max)]
			Excreta mammalian or/and other ¹ mg/kg (max)	Mold damaged % w/w (max)	Insect defiled/ Infested% w/w (max)	Extraneous Matter ² % w/w (max)	Foreign matter ³ % w/w (max)		
Chilli pepper	Whole	NA	1 [2.2]	Nil [0.5] [1] [3]	1 [3]	1 [0][0.5]	1 [0.5]	[0][0.5] [5]	[0] [0.5] [4]
	Crushed/Cracked/broken	NA	NA	NA	NA	NA	NA	[NA][0][25]	[NA][0][4]
	Ground	NA	NA	NA	NA	NA	NA	[NA][0][50]	[NA][0][6]
Paprika	Whole	Class I	1	Nil	0.5	1 [0][0.5]	1[0.5]	[0] [0.1]	[0] [0.1]
		Class II	1	1	1	1 [0][0.5]	1[0.5]	[0] [0.5]	[0] [0.5]
		Class III	1 [2.2]	1 [3 ⁴]	1 [3]	1 [0][0.5]	1[0.5]	[0] [0.5] [10]	[0] [0.5] [8]
	Crushed/Cracked/broken	NA	NA	NA	NA	NA	NA	[NA][0][30]	[NA][0][8]
	Ground	NA	NA	NA [20 ⁵]	NA	NA	NA	[NA][0][75]	[NA][0][11]

¹ Excreta 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

⁵ This 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
Moisture	ISO 939	Distillation	I
Total Ash (dry basis)	ISO 939 ISO 928	Distillation Gravimetry	I I
Acid-insoluble ash (dry basis)	ISO 939 ISO 930	Distillation Gravimetry	I I
Pungency Scoville units	ISO 3513:1995	HPLC	IV
Capsaicin content	[ASTA 21.3]	HPLC	IV
Colour Value	ISO 7541:1989	Spectrophotometry	IV
Mammalian excreta	US FDA MPM V-8 Spices, Condiments, Flavours and Crude Drugs - A.General methods for spices herbs and botanicals (V 32)	Visual examination (for whole)	IV
Mold damage	US FDA MPM V-8 Spices, Condiments, Flavours and Crude Drugs - A.General methods for spices herbs and botanicals (V 32)	Visual Examination (for whole)	IV
[Howard Mold Count	AOAC 945.94	Microscopic Examination]	I
Insect Damage	US FDA MPM V-8 Spices, Condiments, Flavours and Crude Drugs - A.General methods for spices herbs and botanicals (V 32)	Visual Examination	IV
Extraneous Matter ³	ISO 927	Visual Examination followed by Gravimetry	I
Foreign matter ⁴	ISO 927	Visual Examination followed by Gravimetry	I
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
Rodent 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

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

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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