

CODEX ALIMENTARIUS

INTERNATIONAL FOOD STANDARDS



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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STANDARD FOR DRIED OR DEHYDRATED CHILLI PEPPER AND PAPRIKA

CXS 353-2022

Adopted in 2022

1. SCOPE

This standard applies to dried or dehydrated chilli pepper 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 pepper and paprika is the product obtained from drying the fruits of *Capsicum* species of the family Solanaceae mentioned in Table 1, with or without seeds or stalks and processed in an appropriate manner.

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

Common name	Trade name	Scientific name
Chilli pepper or hot pepper	Varietal names (non-exhaustive list) such as Ancho, Pasilla, Habanero, Serrano, Piquin, Manzano	<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.
Paprika	Paprika, hot paprika	<i>Capsicum annuum</i> L., <i>Capsicum frutescens</i> L.

2.2 Styles

Dried and dehydrated chilli pepper and paprika may be:

- a) whole (with or without stalk);
- b) crushed/cracked/broken/flakes; and
- c) ground/powdered.

Ground chilli pepper is the product obtained by grinding whole dried chilli with or without the placenta, seeds, calyx and stalk, and without any other added matter. Ground chilli peppers may vary in colour from pale white to dark blackish red according to the species/varieties.

Ground paprika is the product obtained by grinding whole dried paprika excluding the placenta, seeds, calyx and stalk, and without any other added matter. Ground paprika may vary in colour from orange to red through yellowish and brownish red to pale reddish brown according to the species/varieties.

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 shall be as described in Section 2.

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 Annex I (Table 1. Chemical requirements of dried or dehydrated chilli pepper and paprika, and Table 2. Physical requirements of dried or dehydrated chilli pepper and paprika). 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 requirements in Annex I, whole or ground paprika and hot 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 and hot paprika is traded as unclassified, the provisions for physical and chemical requirements applicable to class II/grade II shall apply as minimum requirements.

3.2.4 Sizing (optional)

Dried or dehydrated 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)¹ 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);² the *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78-2017)³ and other relevant Codex Alimentarius 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),⁴ the *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015)⁵ (Annex III on spices and dried culinary herbs) and other relevant Codex Alimentarius 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).⁶

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).⁷ 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 2.1.1.

8.2.2 The common name of the product shall 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

- a) class/grade, if applicable
- b) 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).⁸

9. METHODS OF ANALYSIS AND SAMPLING

9.1 Methods of analysis

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)⁹ relevant to the provisions in this standard, shall be used.

9.2 Sampling plan

To be developed.

Table 1. Chemical requirements of dried or dehydrated chilli pepper and paprika

Product	Styles	Class/Grade	Moisture % w/w (max) ^a	Total ash on dry basis %w/w (max)	Acid-insoluble ash on dry basis % w/w (max)	Pungency Scoville heat units	Colour value ASTA Colour units (min)
Chilli peppers	Whole	-	11	10	1.6	≥900	N/A
	Crushed/cracked/broken/flakes	-			1.6		
	Ground/powder	-			1.6 ^b		
Paprika	Whole	Extra	11	10	1.3	≤ 480	120
		I			1.6		100
		II			1.6		80
	Crushed/cracked/broken/flakes	-	11	10	1.6	≤ 480	80
	Ground/powder	Extra	11	10	1.6 ^b	≤ 480	120
		I					100
II		60					
Hot paprika	Whole	Extra	11	10	1.6	>480 <900	120
		I					100
		II					80
	Crushed/cracked/broken/flakes	-	11	10	1.6	>480 <900	80
	Ground/powder	Extra	11	10	1.6 ^b	>480 <900	120
		I					100
II		60					

^a Some varieties of dried or dehydrated chilli peppers and paprika have a moisture content up to 15 percent in all styles.

^b If the product contains anticaking agents (max 2 percent), this value is allowed to be maximum 3 percent for paprika and 3.6 percent for hot paprika.

Table 2. Physical requirements of dried or dehydrated chilli pepper and paprika

Product	Styles/Form	Class/Grade	Mammalian excreta or/and other excreta ^a mg/kg (max)	Mould damage % w/w (max)	Insect damage % w/w (max)	Extraneous matter ^b % w/w (max)	Foreign matter ^c % w/w (max)	Live insects count/100 g	Other factors
Chilli peppers	Whole	-	1	3 ^d		1	0.5	0	5% w/w off size (max), 10% w/w other similar varieties (max) 10% w/w broken (max)
	Crushed/cracked/broken/flakes	-	N/A	N/A	N/A	N/A	N/A	0	-
	Ground/powder	-	N/A	20 ^e	N/A	N/A	N/A	0	Rodent hair 6 count /25 g (max) Insect fragments 50 count/25 g (max)
Paprika and hot paprika	Whole	Extra	1	N/A	N/A	1	0.1	0	5% w/w off size (max)
		I	1	N/A	N/A	1	0.5	0	10% w/w other similar varieties (max)
		II	1	N/A		1	0.5	0	10% w/w broken (max)
	Crushed/cracked/broken/flakes	-	N/A	N/A	N/A	N/A	N/A	0	-
	Ground/powder	-	N/A	20 ^e	N/A	N/A	N/A	0	Rodent hair 11 count/25 gm (max) Insect fragments 75 count/25 g (max)

^a Excreta from other animals, such as reptiles and birds.

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

^c 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.

^d Mould damage combined with insect damage.

^e This does not mean the product could be 20 percent mouldy it means that mould filaments can be observed in 20 percent of the fields examined using Howard Mould Count.

N/A=Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero.

NOTES

¹ FAO and WHO. 1995. *General Standard for Food Additives*. Codex Alimentarius Standard, No. CXS 192-1995. Codex Alimentarius Commission. Rome.

² FAO and WHO. 1995. *General Standard for Contaminants and Toxins in Food and Feed*. Codex Alimentarius Standard, No. CXS 193-1995. Codex Alimentarius Commission. Rome.

³ FAO and WHO. 2017. *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices*. Codex Alimentarius Code of Practice, No. CXC 78-2017. Codex Alimentarius Commission. Rome.

⁴ FAO and WHO. 1969. *General Principles of Food Hygiene*. Codex Alimentarius Code of Practice, No. CXC 1-1969. Codex Alimentarius Commission. Rome.

⁵ FAO and WHO. 2015. *Code of Hygienic Practice for Low-Moisture Foods*. Codex Alimentarius Code of Practice, No. 75-2015. Codex Alimentarius Commission. Rome.

⁶ FAO and WHO. 1997. *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods*. Codex Alimentarius Guideline, No. CXG 21-1997. Codex Alimentarius Commission. Rome.

⁷ FAO and WHO. 1985. *General Standard for the Labelling of Pre-packaged Foods*. Codex Alimentarius Standard, No. CXS 1-1985. Codex Alimentarius Commission. Rome.

⁸ FAO and WHO. 2021. *General Standard for the Labelling of Non-Retail Containers of Foods*. Codex Alimentarius Standard, No. CXS 346-2021. Codex Alimentarius Commission. Rome.

⁹ FAO and WHO. 1999. *Recommended Methods of Analysis and Sampling*. Codex Alimentarius Standard, No. CXS 234-1999. Codex Alimentarius Commission. Rome.