



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

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REVISED DRAFT STANDARD FOR SPICES DERIVED FROM DRIED FRUITS AND BERRIES
(ALLSPICE, JUNIPER BERRY AND STAR ANISE)

(At Step 6/7)

Prepared by the EWG chair and co-chair the USA and India

Based on the Written Comments in CXS SCH 24/7/4 Add.1 and CRD 11

1. SCOPE

This standard applies to spices derived from dried or dehydrated fruits and berries, as defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing or for repackaging if required. It excludes the products for industrial processing. The exact species bought/sold may be defined by contractual specifications.

2. DESCRIPTION

2.1 Product definition

2.1.1 Dried fruits and berries belonging to the species listed in Table 1:

Table 1: Variety of Dried Fruit and Berries covered by this standard.

	Common Name	Trade Names	Scientific Name
1	Allspice	Allspice Pimento	<i>Pimenta dioica</i> (L.) Merr. (Myrtaceae)
		Jamaican Pepper	<i>Pimenta racemosa</i> var. <i>racemosa</i> <i>Fosberg</i> Syn <i>Pimenta dioica</i> var. <i>tabasco</i> (Willd. ex Schlttdl. & Cham.). (Myrtaceae)
2	Juniper berry	Juniper berry	<i>Juniperus communis</i> L. (Cupressaceae)
3	Star Anise	Star Anise	<i>Illicium verum</i> Hook. f. (Schisandraceae)

2.2 Styles

Dried fruits and berries may be:

- Whole
- Cut/broken
- Ground/powdered; processed into a powder. (The particle size of ground/powdered style is determined by contractual agreement between buyer and seller.)

Other styles distinctly different for those three are allowed, provided they are labeled accordingly.

2.3 Sizing (optional)

Individual dried fruits and berries may be sized whole or cut when appropriate in accordance with existing trade practices and determined by contractual agreement between buyer and seller. When sized, the size designation and the method used shall be indicated on the package.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

Dried fruits and berries as described in Section 2 shall conform to the requirements contained in Annex I.

3.2 Quality factor

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 and colour especially from rancidity and mustiness.

3.2.2 Classification (optional)

When dried fruits and berries are traded as classified/graded, the provisions in Annex I shall apply as the minimum requirements for the lowest class/grade.

3.2.3 Chemical and physical characteristics

Dried fruits and berries shall comply with the requirements 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 to its quality, keeping quality and presentation in the package.

4. FOOD ADDITIVES

4.1 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.

4.2 Processing aids

The processing aids used in products conforming to this Standard should be consistent with the *Guidelines on Substances used as Processing Aids* (CXG 75-2010).

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), the *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), *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015), Annex III, 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 practical 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 Name of the product shall be as described in Section 2.1

8.2.2 The Name of the product may include an indication of the style as described in Section 2.2. (Styles).

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

- Style
- Class/Grade, if applicable
- Size if sized (optional)
- Net weight (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

9.1 Methods of Analysis¹

See Annex II.

9.2 Sampling plan

To be developed.

¹ The methods of analysis will be included in CXS 234- 1999 after endorsement by CCMAS and the following text shall replace the Table.
“For checking the compliance with this standard, the methods of analysis and sampling contained in the Recommended Methods of Analysis and Sampling (CODEX STAN 234-1999) relevant to the provisions in this standard, shall be used”.

ANNEX 1

Table 1 - Chemical characteristics for spices derived from dried fruits and berries.

Name	Style	Moisture content %w/w (Max)	Total Ash on dry basis % w/w (Max)	Acid Insoluble Ash on dry basis %w/w (Max)	Volatile Oil on dry basis ml/100g (Min)	Other Factors
Allspice	Whole	12	5 [6].	1	3 JAM origin 2 other origins	
	Cut/Broken	12	5 [4]	1	2	
	Ground/ Powdered	12 [10]	4.5 [3] J	1 [4]	1	Non-volatile ether extract on dry basis (%w/w) [max] - 8.5
Juniper Berries	Whole	22 naturally dried 16 dehydrated	4	1	1.4 [0.5] North EU & Russia. 1.0 for other areas	
	Cut/Broken	16	4	1	N/A*	
	Ground/ powdered	14	4	1	N/A	
Star Anise	Whole	10	4 [5]	0.5	7.0 [8]	
	Cut/Broken	10	4 [5]	0.5	N/A*	
	Ground d/powdered	8	4	0.5	N/A*	

* N/A (Not applicable) means that this form of the above product has not been evaluated for this provision, and currently there are no values, N/A does not refer to zero.

Table 2 - Physical Characteristics for Spices derived from Dried Fruits and Berries

Name	Form/Style	Dead Whole Insects Count/100g m (max)	Excreta Mammalian mg/kg (max)	Mould Damage %W/W (max)	Insect Defiled/Infested %W/W (max)	Extraneous Matter %W/W (max)	Foreign Matter %W/W (max)	Live Insect	Shriveled Immature Broken %W/W (max)	Other Factors
Allspice	Whole	2	11	2 [5]	1	[0.5] Combined 0.50	[0.5]	0	**	-Black, white and broken berries, berries with stem each 0.05% max -Off-size ± 10.0% -Other Excreta 11mg/kg (max)
	Cut/Broken	2	N/A	N/A	N/A	[0.5] Combined 0.50 [0.5]		0	**	
	Ground/ Powdered	N/A	N/A	N/A	N/A [Fragments 30/10g]	N/A		0		- Insect fragments: 30/10g - Rodent hair: 1/10g [N/A] - Crude fibre (% by mass): 27.5 max.
Juniper Berries	Whole	N/A [3]	N/A [1]	1.0 [0]	1.0	2.0	N/A	0	20 including discoloured	- Stalks 3% - Broken %w/w max 10. - Off-size ± 10.0%
	Cut/Broken	N/A [3]	N/A [1]	N/A [1.0] [0]	N/A [1.0]	1 [2]	N/A [1]	0	**	
	Ground/ Powdered	N/A	N/A	N/A [0]	N/A		N/A	0	**	N/A
Star Anise	Whole	N/A [2]	[8]	[1.0]][1]	2	[1.0]	0	25	- Stalks 3% - Max. no. fruit per 100g -130
	Cut/Broken	N/A [1]	N/A [8]	N/A [1.0]	N/A [1.0]	1 [2]	N/A [0.5]	0	**	
	Ground/ Powdered	N/A	N/A	N/A	N/A	N/A	N/A	0	**	

Notes:

* Values or Unclassified is the current text in the draft standard are the absolute minimum requirement

** To be decided

2: Excreta Mammalian- If the average of the total number of sub-samples exceeds the listed milligram per kg

3: Dead Whole Insects- If the total number of whole dead insects found in the total number of the sub samples exceeds the specified value shown in the table

N/A: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently there are no values. N/A does not refer to zero.

Table 1 - Methods of Analysis for spices derived from dried fruits and berries

Sl. No	Spices	Provision	Method ^{1,2}	Principles	Type
1	Dried Allspice Dried Juniper Berries Dried Star Anise	Moisture	ISO 939	Distillation	I
		Total ash	ISO 939 and ISO 928	Distillation followed by gravimetry.	I
		Acid- insoluble	ISO 939 and ISO 930	Distillation followed by gravimetr	I
		Volatile oils	ISO 939 and ISO	Distillation followed by gravimetry.	I
		Extraneous matter	ISO 927	Visual examination by gravimetry	I
		Foreign matter	ISO 927	Visual examination by gravimetry	I
		Mould visible	ISO 927	Visual examination by gravimetry	I
		Mammalian excreta	MPM V-8 Spices, Condiments, Flavors and Crude Drugs A. General methods spices herbs botanicals (V 32) https://www.fda.gov/food/methods- food/mpm-8-spices-flavors-and- crude- drugs (Applicable to form of the spices)	Visual examination by gravimetry	I
		Whole dead insect	ISO 927	Visual examination	I
			AOAC 969.44	Flotation method	IV
		Insect fragments	ISO 927	Visual examination counting	I
			AOAC 975.49	Flotation method	IV

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		Insect damage	MPM V-8 Spices, Condiments, Flavours and Crude Drugs General methods for spices herbs and botanicals (V 32)	Visual examination followed by gravimetry or counting	I
		Mould damage	MPM V-8 Spices, Condiments, Flavours and Crude Drugs General methods for spices herbs and botanicals (V 32) (Applicable to whole	Visual examination followed by gravimetry or counting	I
2	Allspice (Whole, cracked/pieces)	Filth (list all the filth here-for example - mammalian excreta)	AOAC 965.40	Flotation	I
	Allspice (Ground/powdere d)	Light filth (list all the filth here-for example- mammalian excreta)	AOAC 981.21	Flotation	I
3	Juniper Berries, Star Anise, (cut/broken,	Light filth (list all the filth here-for example- mammalian excreta)	AOAC 975.49	Flotation	I

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

² The methods of analysis will be included in CXS 234-1999 after endorsement by CCMAS and the following text replace the Table.

“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.”