

APPENDIX VI

**PROPOSED DRAFT STANDARD FOR DRIED FLORAL PARTS – DRIED CLOVES
(For Adoption at Step 5)**

1 SCOPE

This Standard applies to floral parts in their dried forms as spices or culinary herbs, defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing or for repacking if required. It excludes products for industrial processing.

2 DESCRIPTION**2.1 Product definition**

Dried floral parts covered by this Standard (Table 1) are sold in forms as indicated in 2.2.

Table 1: Dried floral parts covered by this standard

S/No	Generic Name	Scientific Name
1.	Dried Cloves	<i>Syzygium aromaticum</i> (L), Merrill & Perry

2.2 Styles

Dried floral parts may be:

- Whole/ intact: dried unopened flower buds of *Syzygium aromaticum* (L), Merrill & Perry; or
- Ground/powdered: products obtained by grinding cloves without any addition.

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

The dried floral parts as described in Section 2 above shall conform to requirements contained in Annexes I and II.

3.2 Quality factors**3.2.1 Odour, flavour and colour**

Dried floral parts shall have a characteristic aroma, colour and flavour which may vary depending on geo-climatic factors/conditions and shall be free from any foreign odour or flavour and colour. The typical colour of dried floral parts may change depending on post-harvest treatment.

3.2.2 Chemical and physical characteristics

Dried floral parts covered by this Standard shall comply with the requirements specified in Annexes I (Chemical Characteristics) and II (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.

3.2.3. Classification (optional)

In accordance with the Chemical and Physical Characteristics in Section 3.2.2, dried floral parts may be classified into the following grades:

- Extra;
- Grade I/Class I; and
- Grade II/Class II.

When unclassified/ungraded, the provisions for class/grade II apply as the minimum requirements.

4 FOOD ADDITIVES

Anticaking agents may be used in the powdered form of the product in accordance with Table 3 of the *General Standard for Food Additives* (CXS 192-1995).

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 Dried floral parts within the scope of this Standard shall be prepared and handled in accordance with the relevant sections of the *General Principles of Food Hygiene* (CXC 1-1969), *Code of Hygienic Practice for low moisture foods* (CXC 75-2015), *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78-2017) 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 particular, 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.

8.2.3 Variety or cultivar, trade name/type may be listed on the label

8.3 Country of origin/country of harvest

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

8.3.2 Year of harvest may be indicated.

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

Parameter	Method	Principle	Type ¹
Moisture	ISO 939	Distillation	I
	[AOAC 2001.12]	Titration	II
	[ASTA 2.0]	Distillation	I
Total Ash	ISO 928	Gravimetry	I
	ISO 3632-2	Gravimetry	I
	AOAC 950.49	Gravimetry	I
	ASTA 3.0	Gravimetry	I
Acid Insoluble Ash	ISO 930	Gravimetry	I
	ISO 3632-2	Gravimetry	I
	ASTA 4.0	Gravimetry	I

¹ According to the definition of "types of method of analysis" as per Codex Procedural Manual Section II.

Volatile oil	ISO 6571	Distillation followed by Volumetry	I
	AOAC 962.17	Distillation followed by Volumetry	I
	ASTA 5.0	Distillation followed by Volumetry	I
Extraneous Matter	ISO 927	Visual examination followed by Gravimetry	I
	ISO 3632-2	Visual examination followed by Gravimetry	I
	ASTA 14.1	Visual examination followed by Gravimetry	I
Foreign Matter	ISO 927	Visual examination followed by Gravimetry	I
	ISO 3632-2	Visual examination followed by Gravimetry	I
Insect Damage	ISO 927	Visual Examination	IV
	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual Examination	IV
Insects/Excreta/Insect Fragments	ISO 927 Method appropriate for particular spice from AOAC Chapter 16, subchapter 14	Visual examination	IV
Crude Fibre	AOAC – 920.169	Gravimetry	I
	ISO 5498	Gravimetry	I
Mould visible	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual examination	IV
Live Insect	ISO 927	Visual Examination	IV
	AOAC 960.51	Visual Examination	IV
Excreta Mammalian,	Macroanalytical Procedure Manual, USFDA, Technical Bulletin V.39 B (For whole)	Visual Examination	IV
Excreta Other	AOAC 993.27 (For Ground)	Enzymatic Detection Method	IV

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

9.2 SAMPLING PLAN

To be developed.

ANNEX I

Chemical Characteristics of Dried Floral Parts							
Product	Style	Total Ash %w/w (max)	Acid Insoluble Ash % w/w (max)	Moisture Content % w/w (max)	Volatile Oils ml/100g (min)	Crude fibre, % m/m (max)	Notes (if applicable)
Clove	Whole	7	0.5	12	[14] [17]	[13]	
	Ground/powdered	7	0.5	10	14	13	

ANNEX II

Physical Characteristics of Dried Floral Parts										
Product	Style	Excreta mammalian mg/kg (max)	Excreta, other ³ mg/Kg (max)	Live Insects Count/100 g (max)	Mold Visible %w/w (max)	Insect defiled/ infested %w/w (max)	Extraneous matter ¹ %w/w (max)	Foreign matter ² %w/w (max)	Defects (Headless ⁴ / Mother ⁵ / Khoker ⁶ Cloves) % (max)	Notes (if applicable)
Clove	Whole	[11] [1]		0	1	1	1	1	[5/6/5][5/4/3] [2/2/2]	
	Ground/ powdered	Nil		[0]	[Nil]	[Nil]	[Nil]	[Nil]	NA	

¹Extraneous [vegetable] matter: Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product

²Foreign Matter: 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.

³Excreta from other animals, such as reptiles and birds.

⁴Headless Clove: Clove consisting of only the receptacle and sepals and which has lost the dome-shaped head.

⁵Mother Clove: Fruit of the clove tree (*Syzygium aromaticum*) in the form of an ovoid brown berry surmounted by four incurved sepals.

⁶Khoker Clove: Clove having undergone fermentation as a result of incomplete drying, as evidenced by its pale brown colour, whitish mealy appearance and often wrinkled surface.