APPENDIX II

PROPOSED DRAFT STANDARD FOR DRIED OREGANO (At Step 6)

1 SCOPE

This Standard applies to dried leaves/flowers of oregano, as defined in Section 2.1, offered for direct consumption, as an ingredient in food processing or for repackaging if required. It excludes dried oregano intended for industrial processing.

2 DESCRIPTION

2.1 Product definition

Dried oregano is the product obtained from the leaves and the flowering tops of plants including but not limited to those listed in Table 1 and processed in an appropriate manner, undergoing operations such as cleaning, drying, rubbing and sifting.

Table 1. Dried culinary herbs covered by this Standard

General name	Trade name	Scientific name
Oregano		
		Origanum vulgare L.
	Italian oregano	Origanum x majoricum Cambess.
	Turkish oregano	
	Cretan oregano	Origanum onites L.
	Oikea oregano	
	Turkish oregano	Origanum vulgare subsp. virens (Hoffmanns. & Link) letsw.
	Greek oregano	Origanum vulgare subs hirtum.
	Syrian oregano	Origanum syriacum L.
	Turkestan oregano	Origanum vulgare sub sp. viride (Boiss.) Hayek Origanum vulgare sub sp. vulgare
	Turkish sword oregano	Satureja montana L.
	[Oregano of Cyprus]	[Origanum dubium]
	Mexican oregano	Lippia graveolens Kunth
		Lippia berlandieri Schauer
		Lippia spp
		Lippia palmeri
		Poliomintha longiflora

2.2 Styles

- **2.2.1** Dried oregano may be offered in one of the following styles:
 - a) Whole;
 - b) Crushed/Rubbed: processed to varying degrees, ranging from a coarse to fine crush; and
 - c) Ground/Powdered: processed into a powder.
- **2.2.2** The particle size of ground/powdered styles is determined by contractual agreement between buyer and seller.

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

Product as defined in Section 2.

3.2 Quality factors

3.2.1 Moisture content

Dried oregano (whole, crushed or ground) shall not contain more than 12% moisture.

3.2.2 Odour, flavour and colour

Dried oregano shall have a characteristic odour and flavour, varying according to the chemical strain of the main components of the volatile oil (carvacrol and/or thymol), which may vary depending on geo-climatic factors/conditions. Dried oregano shall be free from any foreign odour or flavour and especially from mustiness. Dried oregano shall have a characteristic colour varying from pale greyish yellow green to dark green.

3.2.3 Classification

Whole and crushed/rubbed oregano may be classified in three classes/grades according physical and chemical requirements as specified in Table 2 and 3, respectively.

- Extra
- Class/Grade I
- Class/Grade II

When dried oregano is treated as unclassified/ungraded, the chemical and physical characteristics of Class/Grade II apply as the minimum requirements.

3.2.4 Physical characteristics

Whole, crushed/rubbed and ground/powdered oregano shall comply with the physical requirements specified in Table 2.

Table 2. Physical requirements for whole/crushed/rubbed and ground/powdered oregano (allowed tolerance for defects)

Parameter	Whole or	Ground/Powdered		
Parameter	Extra	Class/Grade I	Class/Grade II	Oregano
Extraneous vegetable matter (1) (maximum % mass fraction)	0.5	2	2	N/A
Foreign matter content (2) (maximum % mass fraction)	0.1	0.1	0.1	N/A
Tolerance for oregano powder among non-powder styles (% smaller than the particle size indicated) (3)	5	10	20	N/A
Dead insects (maximum number/100 g)	3	3	3	N/A
Insects fragments (maximum number/10 g)	300	300	300	1250
Visible mold/insect damage (maximum % m/m)	1	3	5	N/A
Live insects	0	0	0	0
Mammalian excreta maximum (mg/Kg)	1.0	2.2	2.2	N/A
Other excreta (maximum mg/Kg) (4)	10	10	22	N/A

^{(1):} Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product, such as stems/sticks, etc.

^{(2):} Any visible/detectable objectionable foreign matter or material not usually associated with the natural components of the spice plant, such as stones, burlap bagging, metal, foreign leaves etc.

^{(3):} Particle size is evaluated upon request accompanied by supporting documents.

^{(4):} Excreta from other animals such as reptiles and birds.

3.2.5 Chemical characteristics

Whole, crushed/rubbed and ground/powdered-oregano shall comply with the chemical requirements specified in Table 3.

Table 3. Chemical requirements for whole/crushed/rubbed and ground oregano

	Whole/C			
Parameter	Extra	Class/ Grade I	Class/ Grade II	Ground/Powdered Oregano
Total ash, % mass fraction (dry basis), maximum	9	10	10	12
Acid-insoluble ash, % mass fraction (dry basis), maximum	1.2	2	2	2.5
Volatile oils, ml/100 g (dry basis), minimum	2.5	2.0	1.5	1.5

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), [Code of Practice for Weed Control to Prevent and Reduce Pyrrolizidine Alkaloid Contamination in Food and Feed (CXC 74-2014)] 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 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 (Spices and Dried Aromatic Herbs), and other Codes of Practice.
- **6.2** The products shall comply with any microbiological criteria established in accordance with the *Principles for the Establishment and Application of Microbiological Criteria for 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 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 "dried oregano" or "oregano" when the omission of the word dry would not mislead or confuse the consumer.
- **8.2.2** The name of the product shall include an indication of the trade name, varietal types as described in Table 1 and the style as described in Section 2.2.

8.3 Country of harvest/origin

- **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 (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 package 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 analysis

Table 4. Methods of analysis¹

Parameter	Method	Principle	Type ¹
Moisture	ISO 939	Distillation	I
	ISO 760	Titration	II
	AOAC 2001.12	Titration	II
	ASTA 2.0	Distillation	I
Total ash	ISO 928	Gravimetry	I
	ASTA 3.0	Gravimetry	I
Acid-insoluble ash	ISO 930	Gravimetry	I
	ASTA 4.0	Gravimetry	1
Volatile oils	ISO 6571	Distillation followed by Volumetric	I
	ASTA 5.0	Distillation followed by Volumetric	I
Extraneous vegetable	ISO 927	Visual examination followed by Gravimetry	I
matter	ASTA 14.1	Visual examination followed by Gravimetry	1
Foreign matter	ISO 927	Visual examination followed by Gravimetry	I
Mammalian excreta	Macroanalytical Procedure Manual, USFDA, Technical Bulletin V.39 B	Visual examination	IV
	(For whole)		IV
Other excreta	AOAC 993.27 (For Ground)	Enzymatic Detection Method	IV
	ISO 927	Visual examination	IV
Whole dead insect	MPM V-8 Spices, Condiments, Flavours and Crude Drugs A. General methods for spices herbs and botanicals (V 32)	Visual examination	IV
Incost fragments	AOAC 975.49	Flotation method	IV
Insect fragments	AOAC 969.44	Flotation method	IV

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

9.2 Sampling plan

To be developed.

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