



**Agenda Item 7**

**CX/SCH 17/3/7 Add.1  
January 2017**

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

**3<sup>rd</sup> Session**

**Chennai, India, 6 -10 February 2017**

**COMMENTS ON PROPOSED DRAFT STANDARD FOR OREGANO**

Paraguay

“[Proposal Draft Codex Standard for Oregano (Origanum L spp ~~and Lippia spp~~)]”[MEX]

**Justification: Botanically it corresponds to a family other than Origanum L spp.**

**1. SCOPE**

~~This standard applies to dried leaves/flowers of species or hybrids of the genus Origanum L. from the Lamiaceae family, except (Origanum majorana L.) offered for industrial food production and for direct consumption including for catering purposes or for repackaging if required. “It does not apply to the product when indicated as being intended for industrial processing”[US]~~

~~[This standard applies to dried leaves/flowers of those plants commonly sold in commerce as “oregano”. The exact species bought/sold may be defined by contractual specifications; offered for direct human consumption, commercial food processing and for repackaging if required. It does not apply to product when intended for industrial processing][US]~~

[This standard applies to dried leaves/flowers of species of the genus Origanum spp and Lippia spp from the Lamiaceae family, except marjoram (Origanum majorana L.) offered for industrial food production and for direct consumption including for catering purposes or for repackaging if required. It does not apply to the product when indicated as being intended for further processing][MEX]

**2. DESCRIPTION**

**2.1 Product Definition**

Dried oregano is the product:

- (a) Obtained from the leaves and the flowering tops of Origanum L. from the Lamiaceae family. –

[Dried oregano is the product:

- (a) ~~Obtained from the leaves and the flowering tops of **those plants commonly sold in commerce as “oregano”**. Origanum L. from the Lamiaceae family.~~[US]

- (b) Prepared Processed in an appropriate manner, having undergone operations such as cleaning, drying, rubbing, and sifting.

~~[Dried oregano is the product obtained from the leaves and the flowering tops of Origanum L. spp and Lippia spp from the Lamiaceae family, except marjoram (Origanum majorana L.), prepared in an appropriate manner, having undergone operations such as cleaning, drying, rubbing, milling and sifting.][MEX]~~

**2.2 Styles-Forms of Presentation.**

Dried oregano may be offered in one of the following presentations styles:

**Justification:** The phrase "forms of presentation" is commonly used in the Spanish versions of the Codex Standards.

Whole:~intact

**Justification:** It is considered that the term does not need clarification.

Crushed/rubbed: processed into varying degrees ranging from a course to fine crush. Ground/powdered: processed into powders

Whole/intact: ~~[MEX]~~

Crushed/rubbed: processed into varying degrees ranging from course to fine crush. ~~[MEX]~~

Ground/powdered: processed into powder ~~[MEX]~~

### 2.3 Varietal Types

Any wild grown species and hybrid or cultivated variety (cultivar) of Origanum L. suitable for processing, except Origanum majorana L.

~~[Any wild grown species and hybrid or cultivated variety (cultivar) those plants commonly sold in commerce as "oregano", belonging to the genus of Origanum which are suitable for processing. It does not included Origanum majorana L.] [US]~~

## 3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 3.1 Composition

Product as defined in Section 2.

### 3.2 Quality Factors

#### ~~[3.2.3.1 QUALITY FACTORS] [MEX]~~

#### 3.2.1 Odour, flavor and color

Dried oreganos shall have a characteristic odour and flavor fragrant, [ warm ], unpungent and bitter flavor (varying according to the chemical strain of the main components of the volatile oil (carvacrol and/or thymol)). Dried oreganos shall be free from any foreign odour or flavor and especially from mustiness. The colour ranges from yellow green to dark green.

#### ~~[3.1.23.2.1. Odour, flavor and color~~

~~Dried oregano shall have a characteristic odour and flavor fragrant, warm, unpungent and bitter flavor. [ varying according to the chemical strain of the main components of the volatile oil (carvacrol and/or thymol)]. Dried oregano shall be free from any foreign odour or flavor and especially from mustiness. The colour ranges from pale greyish, yellow green to dark green. [MEX]~~

#### 3.2.2 Infestation

#### ~~[3.1.13.2.2. Infestation [ MEX]~~

Dried oreganos shall be free from live insects and ~~practically free from insects~~ dead, insects fragments and contamination visible to the ~~by~~ rodents, visible at ~~naked eye~~ **simple sight** (~~corrected naked eye, if necessary, for abnormal vision~~) (with glasses, for those who usually use them)

**Justification:** The term "practically" is considered permissive and subjective considering that the contaminations mainly by rodents can present a significant risk. In addition it is suggested to maintain the terms and expressions used in the other proposed rules (cumin, thyme, etc.)

#### 3.2.3 Classification

In accordance with the Chemical and Physical Characteristics in section 3.2.4 [Whole and Crushed/Rubbed] [US] and 3.2.5, styles of dried oregano are classified into the following grades:

- [Grade] [MEX] Extra
- Grade I/Class I, and
- Grade II/Class II.

[In all grades/classes] [MEX], the defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.

#### 3.2.4 Chemical characteristics

[Whole leaf, crushed or rubbed/ground/powdered] [US] Dried oregano shall comply with the chemical requirements as specified in Table 1.

**[Table 1: Chemical requirements for whole crushed/rubbed, and ground/powdered oregano.]**[US]

PARAMETERS	Requirements for Whole or Crushed/Rubbed styles			Requirements for Ground /Powdered styles		
	Extra	Class/ Grade I	Class/ Grade II	Extra	Class/ Grade I	Class/ Grade II
Moisture content (m/m,) maximum	<u>11</u>	<u>12</u>	<u>12</u>	11	<u>12</u>	12
Total ash (m/m, dry basis) maximum	<u>9</u>	<u>10</u>	<u>10</u> [12]	9, [10]	<u>10</u> , [12]	10, [12]
Acid insoluble ash (m/m, dry basis) maximum	<u>1.2</u> [1.5]	<u>2</u>	<u>2</u>	1.2, [1.5]	<u>2</u> , [2.5]	2, [3]
a) Volatile oil ml/100 g (dry basis) minimum	<u>2,5</u>	[1.5][2.0]	[1][1.2][1.75]	[1.5][1.75]	[1], 1.1, [1.5], [1.50]	[0.8], 1, [<1.1]
[Artificial colors/ flavorings Additives or foreign substances]	0	0	0	0	0	0

[About the Point 3.2 Quality Factors (Moisture Content), USA suggest no more than 11][US]

1. [Should be eliminated from Table 1 the determination for Artificial colors/ flavorings Additives or foreign substances][MEX]

### 3.2.5 Physical characteristics

Whole leaf, crushed or rubbed/ground/powdered oregano shall comply with e physical requirements as specified in Table 2.

**[Table 2: Physical requirements for whole leaf, crushed or rubbed/ground/powdered o]**[US]

	PARAMETERS	Requirements for Whole or Crushed/Rubbed styles			Requirements for Ground /Powdered styles		
		Extra	Class / Grade I	Class / Grade II	Extra	Class / Grade I	Class / Grade II
1	Extraneous <u>vegetable</u> matter <sup>1</sup> (maximum % mass fraction)	1	2	2	1	2	2
2	Foreign <sup>2</sup> <u>extraneous</u> matter content <sup>2</sup> (maximum % mass fraction)	0,1[1]	0,1[1]	0,1[1]	1	1	1
3	Oregano powder (smaller than 40 mesh/420 µm maximum %)	1, [5][MEX] 5	2, [10][MEX] 10	4 [2], [20][MEX] 20	N/A	N/A	N/A

**Justification:** In order to unify the terms and definitions used in the other committee rules.

<sup>1</sup> All vegetable matter from the specific plant other than the required part. The proportion of stalks which have dimensions exceeding 7 mm in length and 3 mm in diameter shall not be more than 50% (w/w) of total extraneous matter content.

<sup>2</sup> Foreign extraneous: visible and / or apparent matter or material not usually associated with the oregano. Foreign matter includes leaves such as olive leaves, strawberry leaves and sumac leaves.

[<sup>2</sup>Foreign matter: visible and/or apparent matter or material not usually associated with oregano. Foreign matter includes leaves such as olive leaves, strawberry leaves and sumac leaves.] [MEX]

**[U.S. Proposal: (Alternative Proposal) Table 2 Physical Characteristics]**

Parameters	TOLERANCES ALLOWED			
	Whole or Crushed/Rubbed styles			Ground/Powder styles
	Extra	Class I	Class II	
<b>Total tolerances</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>5</b>
Vegetative Matter associated with the product	3	3	3	3
Extraneous Vegetative Matter (non-toxic plants)	[1] <del>[MEX]</del> 2	2	2	2
Foreign Matter (Maximum %) Non-plant foreign parts	[1] <del>[MEX]</del> 2	2	2	0,1
Percentage of "Oregano" powder (maximum) among whole or crushed styles	1	2	4	-
Percentage of whole or crushed styles among Oregano powder (maximum)	N/A	N/A	N/A	0,5
[Mold, % by weight] <del>[MEX]</del>	1	1	1	1
Pieces of stem greater than 7mm long x 3mm wide] <del>[MEX]</del>	1	1	1	0.10
Pest damage /hairs etc (mg/Per kg))	<u>2,2</u>	<u>2,2</u>	<u>2,2</u>	2,2[N/A] <del>[MEX]</del>
[Spotted/dark leaves (maximum in %)] <del>[MEX]</del>	20	30	40	-

**3.3 CLASSIFICATION OF DEFECTIVES**

A container that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 (except those based on sample averages), should be considered as a "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, as described in Section 10. ~~For factors evaluated on a sample average, a lot will be considered acceptable if the average meets the specified tolerance, and no individual sample is excessively out of tolerance.~~

**Justification:** It is proposed to eliminate the evaluation by average since it could cause the inclusion of lots with high percentages of defects, in addition the phrase, excessively out of tolerance, would be very subjective.

**4. FOOD ADDITIVES**

No food additives and flavorings are permitted in the products covered by this standard.

**5. CONTAMINANTS**

**5.1** The products covered by this standard shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995).

**5.2** The products covered by this standard shall comply with the maximum residue limits (MRLs) established by the Codex Alimentarius Commission.

**5.3** Dehydration factors should be taken into consideration. Clarification is requested.

**6. FOOD HYGIENE**

**6.1.** The produce regulated by the provisions of this standard should be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), Annex on Spices and Dried Aromatic Herbs to the Code of Hygienic Practice for Low-Moisture Foods (CAC/RCP 75-2015), and other relevant Codex texts, such as codes of practice and codes of hygienic practice.

**6.2.** The produce must comply with microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria Related to Foods (CAC/GL 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.

**Comment:** Be attentive to use the same text in all standards.

## 8 PACKAGING AND PRESENTATION

### 8.1 Uniformity

The contents of each package must be uniform, including particle size, and must only contain oregano of the same species, variety, cultivar and/or commercial type and quality. The visible part of the package must be representative of the entire contents.

## 9 LABELLING

**9.1** The products covered by the provisions of this Standard shall be labelled in accordance with the Codex General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985). In addition, the following specific provisions apply:

### 9.2 Name of the Product

**9.2.1** The name of the product shall be as defined in Section 2 Product Definition. It may also include an indication of the varietal types and of the style as described in Section 2.2. as well as of the product classification, as described in Section 3.2.

### 9.2.2 Styles

The name of the product shall include the style (cut/description/presentation), as defined in Section 2.2

### 9.3 LABELLING OF ~~NON-RETAIL~~ CONTAINERS

**Justification:** The point should refer to non-retail sale. Could be a translation error.

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.

### United States of America

The United States submits the following comments in support of its position that the Proposed Draft Standard for Oregano should not be limited to species or hybrids of the genus *Origanum* spp. from the Lamiaceae family," but also include the genus *Lippia* spp. from the Verbenaceae family. The comments are based on review of scientific literature on the oregano plant species, essential chemical characteristics and trade practices in an effort to define "what is oregano?"

### Specific Comments

#### What is Oregano?

#### **There is no agreement within the botanical scientific community as to what "oregano" is?**

In a 1954, writing in Economic Botany, L. Calpouzos wrote in the abstract, "The condiment name "oregano" should be understood to refer, not to any one species but to a particular spice flavor, furnished by plants of several genera in different parts of the world." In the article, he notes that at least 39 species of plants from six families and 16 genera are associated with the common name "oregano."

At the second session of the CCSC meeting, the committee agreed to use The US National Plant Germplasm System (GRIN) and Mansfeld's World Database of Agricultural and Horticultural Crops as authoritative sources for common names. GRIN lists four different species of four different genera, while Mansfeld's lists ten different species from four different genera as oregano.

### Essential oil Composition

It is not possible to define “oregano” solely by the chemical composition of its essential oil. For example, there is significant overlap in the chemical compositions within the genera *Origanum* as well as between *Origanum* and other species, e.g. *Thymus*, *Lippia*, and other plants commonly sold as “oregano” (Giordani et al., 2008; Stefanakis et al., 2013).

A parsonomic analysis based on 102 chemicals found in the essential oils from 73 different spice plants, both “oregano” and non-oregano, groups the various plants used as “oregano” into one large cluster (red box in Figure 1, attached).

### Oregano within the Harmonized Tariff Schedule

The Harmonized Tariff Schedule gives the code number 0910.99.20 00 to “*Origanum (Lippia spp.)* crude or not manufactured” and 0910.99.40 00 to “*Origanum (Lippia spp.)* other.” No other species is listed for *Origanum* in the schedule.

### References:

- Calpouzos, L. (1954). Botanical aspects of oregano. *Economic Botany*, 8(3), 222-233.
- Giordani, R., Hadeif, Y., & Kaloustian, J. (2008). Compositions and antifungal activities of essential oils of some Algerian aromatic plants. *Fitoterapia*, 79(3), 199-203.
- Stefanakis, M. K., Touloupakis, E., Anastasopoulos, E., Ghanotakis, D., Katerinopoulos, H. E., & Makridis, P. (2013). Antibacterial activity of essential oils from plants of the genus *Origanum*. *Food control*, 34(2), 539-546.



Tree 1 from search (criterion: minimize Tree value using character matrix)