



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

Second Session

Goa, India, 14 – 18 September 2015

PROPOSED DRAFT STANDARD FOR OREGANO

Comments at Step 3

Comments of Argentina, Chile, Egypt, Kenya and Turkey

ARGENTINA

1- Point 1. Scope: Argentina wants to propose a new wording for SCOPE, on the document in Spanish: "This rule applies to genus *Origanum* L leaves and flowers of species or hybrids of: the *Lamiaceae* family, offered for industrial food production and for direct consumption, including for catering purposes or for repacking, if required. It does not apply to the product, when indicated as being intended for further processing".

Justification: translation error.

1- Point 3.2.3: Argentina proposes to keep the bracketed phrase "varying according to the chemical component of volatile oil (carvacrol and/or thymol)"

Justification:

Being the scope so broad, it is essential to distinguish between the two components that are mainly in the genus *Origanum* L. to facilitate differentiation with other "oreganos" falling under the same genus, but with very different components and therefore away from their typical aroma and flavor (e.g. *Origanum Majorana*). Even, it could be quantified, as it was done with cumin and peppers, and place the analysis method for its determination on the "Table of Sampling and Methods of Analysis."

On the cumin, thyme and peppers documents, the main components that determine the taste or aroma, have been considered, and we believe that the same logic must be followed for oregano, because such information is relevant.

If the cumin document is observed, in this same point, the cuminic aldehyde percentage was quantified; for thyme it is clarified that differs by its thymol, carvacrol and linalool chemicals, even explaining that the values vary with the different geo-climatic conditions. For peppers, piperine content is quantified as a differentiation element.

Also in the overall document, under the herbs group only *Origanum vulgare* L is mentioned, with the common name of oregano and the others are *Organum Majorana* L./ *Majorana hortensis* Moench, and *Lippia graveolens* Kunth. as Mexican oregano.

3- Point 3.2.4.1 Chemical Characteristics: Table 1. Argentina wishes to submit for consideration two possible options in relation to the percentage of essential oil:

a- Maintain the lowest values for Classes I and II, suggested in the first draft document (**Class I, 1.2%, and Class II 1%**) accepting 2.5% for the Extra Category.

Justification:

Oregano produced in Argentina stands out in world trade for its quality attributes, which makes it superior to other world market oreganos. Added to this is the increasing incorporation of technology in postharvest conditions, such as improved cleaning.

As with other aromatic spices, a big difference is present in the chemical composition of the essential oils because of the material origin, the production environment, and handling. However, this does not invalidate the capability of Argentine oregano for the required applications. (See committee scope)

Oregano in Argentina has aroma and flavor attributes due to its composition (predominantly carvacrol and/or thymol, and to a lesser extent sabinene) and color attributes required in the oregano project.

We believe that oregano in Argentina must remain among the top categories, Extra, Cat I, for use in foods and culinary and gourmet industry uses, where consumers prefer a pleasant flavor to the palate, which maintains its properties for a long time.

If the values of essential oil in all classes are raised, we could leave side Oreganos which meet all the requirements of this standard, but do not reach that value, especially because the scope is broad (*Origanum* L)".

b- Differentiate between a direct consumption oregano and an industry oregano. Give the consumption oregano a value of 1.2 for Class I and 1.0 for Class II, and give industry oregano a value of 1.5-2% for Class I and 1.2-1.75 for Class II.

Justification:

The percentage of essential oil is relevant to the industrial use of oregano, but not for direct consumption made by the consumer. Here the values of thymol and carvacrol, which grant its characteristic aroma and flavor are more important. It is for this reason that we believe the product should be differentiated according to its composition, depending on its use destination.

4- Paragraph 8: Argentina considers that the possibility to include in paragraph 8 a similar text to that included in 8.2.2 of the standard for thyme, should be examined, in order to consider blends of different species of *Origanum* L.

Justification: thyme and oregano have a broader and less specific scope than cumin and peppers.

5- Paragraph 10: Argentina considers that, with regard to point 10 Methods of sampling and analysis, it should go to consultation of the Codex Committee on Methods of Analysis and Sampling, to decide on the most suitable methods for this species.

CHILE

The proposed second draft standard for oregano has been revised and the following comments have arisen from it.

In 2.1 Product Definition, we believe the definition used in letter a) is ambiguous, since it considers the concept of "having reached appropriate development for processing" without defining it. This is subject to interpretations, therefore we suggest defining it with clear parameters.

In the Spanish version, we have found two format mistakes:

- In Table 1, in "Aceite esencial 4 ml/100 g (base seca) mínimo.", there is an extra letter "l". We suggest deleting it.
- In Table 2, in "Materias extrañas (% m/m máximo)-a" the final letter should be between parenthesis and superscript, as it is showed next "Materias extrañas (% m/m máximo)^(a)". We suggest revising format.

EGYPT

Unresolved issues

1- Point No. 6

The Standard can include species and subspecies comes from the same genus (*Origanum* genus), family (*Lamiaceae*), but shall not include herbs from different genus and families, for example *Lippia graveolens* which belongs to genus *Lippia* and family *Verbenaceae*, although the volatile oil content of both plants contains similar compounds (primarily ones being carvacrol and thymol & p-cymene)

Scientific classification

Lippia graveolens

Family: *Verbenaceae*

Genus: *Lippia*

Species: *L. graveolens*

Binomial name: *Lippia graveolens* Kunth

Shrub or small tree, 1–2.7 m in height with white or yellowish flowers

Origanum vulgare

Family: *Lamiaceae*

Genus: *Origanum*

Species: *O. vulgare*

Origanum vulgare L.

Perennial herb, growing from 20–80 cm tall, purple flowers

2- Point No. 7 “section 2.2”

- a. We support that the whole leaf should be an appropriate style for oregano.
- b. We do not agree with proposal that the different style should be bound to the aperture size of a sieve or to a standardized mesh because there is no need to have a constraint which may affect the trade as a particular mesh size, as we need to widen the scope not to trap it by a specific size, thus generalization will ease the trade .

3- Point No. 7 “section 3.3.2”

We agree with the proposal the flavor should be linked to the main chemical components of the volatile oil.

4- Point No. 7 “section 5”

We don't support to include the leafy herbs under the same category of “leafy vegetables”

KENYA**SCOPE**

This standard applies to dried leaves and flowers of species or hybrids of the genus *Origanum* L. from the *Lamiaceae* family, offered for industrial food production PROCESSING 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.

COMMENT:

This standard applies to dried leaves and flowers of species or hybrids of the genus Origanum L. from the Lamiaceae family, offered for food processing and for direct consumption including Prepackaging if required. It does not apply to the product intended for further processing.

JUSTIFICATION:

We use the spice in food industries but not necessarily offered for industrial food production and sometime sold as is.

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, having reached appropriate development for processing
- (b) ~~processed in an appropriate manner, having undergone operations such as cleaning, drying, rubbing, milling and sifting.~~

COMMENT:

We propose clause 2.1 ‘Product definition’ to read as follows:

Dried oregano is the product obtained from the leaves and the flowering tops of Origanum L. from the Lamiaceae family, having reached appropriate development for processing.

We also propose to remove numbering ‘(b)’ to under “Stlye” since it is misplaced under definition clause.

2.2 STYLES**COMMENT**

We propose to move (b) from clause 2.1 and insert it under “2.2 STYLES” introductory part for it does fall under definition of the product. We propose the introductory part under style to read as follows:

Dried oregano is processed in an appropriate manner, having undergone operations such as cleaning, drying, rubbing, milling and sifting ~~Dried oregano~~ and may be offered in one of the following styles:

{a) Whole leaf: intact leaves and/or flowering tops (flowers) of dried oregano.}

COMMENT

We accept (a) the way it is and propose to remove both open and close square brackets.

b) [Crushed/Rubbed: crushed or rubbed leaves and flowering tops (flowers) of dried oregano **[that are retained sieve of a nominal aperture size of 500 µm] OR [that are 100% retained by a 40 mesh].**

COMMENT

We accept (b) the way it is and propose to remove both open and close square brackets.

c) Ground/powdered: ground or powdered leaves and flowering tops (flowers) of dried oregano ~~[that will pass completely through a sieve of nominal aperture size 500 µm] OR [that will pass completely through a 40 mesh].~~

COMMENT

We accept (c) the way it is and propose to remove both open and close square brackets.

3.2.2 Odour, flavor and color:

~~Dried oregano shall have a characteristic odour and flavour (fragrant, warm, unpingent and bitter flavour) [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 flavour and especially from mustiness. The colour ranges from pale greyish green to olive green.~~

COMMENT:

*Dried varieties of oregano shall have a characteristic odour, **colour** and flavour (fragrant, warm, unpingent and bitter flavour) of their own*

3.2.4.1. Chemical characteristics

[Whole leaf.] Oregano crushed or rubbed/ground/powdered oregano shall comply with the chemical requirements as specified in Table 1. We propose to use the spice 'oregano' instead of 'whole leaf'

COMMENT on clause 3.2.4.1

TABLE 1 needs to be inserted the heading for clarification.

TURKEY

Turkey is the biggest producer of oregano in the world. Owing to Turkey's climatic and ecological conditions, oregano are cultivated or gathered from the natural vegetation. USA, Hong Kong, Japan and EU countries are the major potential markets for spices originating from Turkey.

The most export oregano variety from Turkey is Turkish oregano (*Oreganum onites* L.). Main gathered from the natural vegetation oregano varieties are Turkish oregano (*Oreganum onites* L.), *Origanum majorana*, *Origanum minutiflorum*) and *Origanum syriacum* var. bevanii.

Oregano was exported in 2014 to an estimated worldwide total of 23,000 tons, Turkey's share is approximately 67%. Turkey exported nearly 15,491 tons oregano in 2014.

Para 2.1 (b)

To read as follows “

- b) processed in an appropriate manner, having undergone operations such as cleaning, drying, rubbing, milling and sifting “and microbiological reduction process”.**

Justification: The production, processing, and packing of spices and dried aromatic herbs is very complex. For example, source plants for spices and dried aromatic herbs are grown in a wild area of countries. The safety of spices and dried aromatic herbs products depends on maintaining good hygienic practices along the food chain especially during primary production. Spices are used in different type of food production cheese, meat preparation etc. And spices with low microbiological load is necessary for that kind of food. Therefore, microbiological reduction methods (sterilization etc) would be used.

Rephrase 2.2 (b) and (c) as follows:

b) Crushed/Rubbed: crushed or rubbed leaves and flowering tops (flowers) of dried oregano. ~~[that are retained sieve of a nominal aperture size of 500 µm] OR [that are [100%] retained by a 40 mesh]~~

c) Ground/powdered: ground or powdered leaves and flowering tops (flowers) of dried oregano.

~~[that will pass completely through a sieve of nominal aperture size 500 µm] OR [that will pass completely through a 40 mesh].~~

Justification: Oregano is a very sensitive texture for crushing in every step. Even if it is packaged, it could be crushed. According to the current processing technology, it is not possible to produce a crushed and rubbed product without zero fines content. Even the leaves of oregano packed leaves by leaves with hand (which is not practically possible), there will be some fines content during the transportation of product so the product

will contain some parts that are not retained on 500 micron mesh size. The particle size of the product has to be specified in the physical parameters section. By the way, 500 micron is not referring to 40 US mesh, it is referring to 35 US mesh. 420 micron is referring to 40 US mesh. Our recommendation is that to define this parameter within the table-2, physical parameters.

Para 3.2.2

Deletion of brackets.

Para 3.2.3

Class II is deleted from ground/powder styles.

Justification: Ground/powdered styles should be two types. Because of the low quality of class II, it should be deleted. Because if class II is defined, other class specifications are being useless. In addition, classing of oregano ground as second class with lower volatile oil will cause the economical adulteration.

Table 1

Acid soluble ash should be "1".

Justification: Acid soluble ash is the criteria representing the purity. Therefore smaller is better.

Table 2 item 4

Deletion of brackets.

Para 9.3

Machine dried is added.

Para 10 in Table

Moisture: Deletion of brackets and addition of distillation instead of gravimetric.

Volatile oil: The ISO methods are not gravimetric. These are distillation methods. Therefore, the ASTA method is commonly used method for analysis of volatile oil. This method has to be mentioned as additional analysis method.

Footnote (1) is added as text in below.

"(1): most important compound of oregano is volatile oils and prevention of loss of volatile compounds, it should be analyzed without crushing."