

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
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World Health
Organization

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Agenda Item 4.1

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

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Report of the virtual Working Group on the draft standard for dried seeds - nutmeg

(Prepared by Indonesia and India)

BACKGROUND

1. The Virtual Working Group (VWG) on the Draft Standard for Dried Seeds – Nutmeg was held on 19 September 2022 to further address the comments received on the draft standard and revise the text accordingly, in order to facilitate preparations for CCSC6. The meeting was chaired by Indonesia as Chair of the electronic working group (EWG) on the Draft Standard for Dried Seeds – Nutmeg.
2. The Chair of the VWG provided an overview of the document, noting that some comments received in response to CL 2022/26/OCS-SCH had been addressed and included in the amended draft presented to the meeting.
3. The VWG agreed to most recommendations, noting some provisions that need to be further considered by the Committee.
4. Appendix I of this document showed amended version of the draft standard, based on deliberations and comments provided by the member countries during virtual working group, with following explanation and decisions:

Scope

5. VWG agreed to retain the text as it is, taking into account that the text already agreed by CCSC5 and it is aligned with the TOR of CCSC and with the template for SCH standards.

Section 2.1.1

6. The proposal from one delegation to change the text “Appropriate degree of development” into “Having the mature pericarp opened naturally (not opened manually or mechanically) and the red aril known as mace is clearly visible and formed” is not accommodated. However, the proposal is written as footnote for “Appropriate degree of development”.
7. VWG agreed to retain Table 1 in this section, considering that this standard is a group standard. Table 1 is designed to accommodate other commodities under categories ‘dried seed’ spices whose standards may be proposed in the future.

Section 2.1.2

8. Some delegations propose to delete the size in this section, and the VWG agreed to delete the text as proposed.

Section 3.2.3

9. One delegation proposed to delete this Section, but VWG agreed to retain the Section as it is, to be in line with other SCH standards.

Section 4

10. There were some discussions to change the provision related to food additives, but VWG agreed to retain as it is, taking into account that this provision has been endorsed by CCFA52. Regarding calcium oxide which is categorized as processing aids, VWG agreed to remove CaO from Table 2, since it is not considered as quality parameter.

Section 9.1

11. Codex Secretariat recalled that Table 4 regarding method of analysis already endorsed by CCMAS41, so the VWG agreed to retain Table 4.

Annex I, Table 2

12. VWG agreed:

- To replace term “dry basis” with “on dry basis”.
- To insert term “on dry basis” on volatile oils content parameter.
- To delete Calcium as Ca-Oxide parameter as consequence of discussion in Section 4.

Annex II, Table 3

VWG noted the following matters:

- Some delegations propose to separate parameter “mould visible and insect defiled/infested”, to avoid inequality value between mould visible and insect defiled/infested. One delegation recalled that this matter has been accommodated in footnote 3 of Table 3 with the sentence “the value shall be divided equally between mould visible and insect defiled/infestation”. VWG agreed to retain the parameter as it is, since it was already agreed at CCSC5.
- One delegation proposes to change quality parameter value of “piece of mace” from “0,1” to “3.0”. VWG agreed to retain the value as it is, since it was already agreed at CCSC5.
- One delegation proposes to amend Table 3 with addition of three parameters i.e. “shell fragments”, “off size, when sized”, and “broken/damaged among whole only”, and its values. The committee is invited to consider the proposal.

RECOMMENDATION

13. The Committee is invited to consider the amended draft standard as presented in Appendix I to this document with the intent to progress it to Step 8 for final adoption by CAC45.

DRAFT STANDARD FOR DRIED SEEDS – NUTMEG

1. SCOPE

This Standard applies to dried seeds, in their dried or dehydrated form as spices, as defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes dried seeds for industrial processing.

2. DESCRIPTION**2.1. Product definitions**

2.1.1 Dried nutmeg is the “seed” of *Myristica fragrans* of the Myristicaceae family (Table 1), having reached appropriate degree of development¹, harvested and post-harvest treated properly, by undergoing operations such as stripping, drying, sorting, cracking, grading, and/or grinding before final packaging, and are sold in styles as described in 2.2.

Table 1. Dried Seeds Covered by this Standard

Common name	Scientific name
Nutmeg	<i>Myristica fragrans</i> Houtt.

2.1.2 Nutmeg has variety of shapes from ovoid to broadly ovoid, with variety of sizes ~~which averages between 2—3 cm long and 1.5—2.5 cm wide~~. Nutmeg kernels have a slightly wrinkled like surface. Inshell nutmeg seeds may rattle due to the seed’s shrinkage within the shell in the drying process.

2.2. Styles

Dried nutmeg may be offered in one of the following styles:

- 2.2.1. Whole inshell;
- 2.2.2. Whole shelled;
- 2.2.3. Broken seed; and
- 2.2.4. Ground/powdered seed.

2.3. Sizing (Optional)

Whole nutmegs (inshell and shelled) may be sized by count per weight, weight, diameter, or in accordance with pre-existing trade practice. When sized, the methods used should be labelled on the package.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS**3.1. Compositions**

Product as described in Section 2 above shall conform to the requirements specified in Annexes I and II.

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

The products shall have a characteristic odour, flavour, and colour, which may 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. Chemical and physical characteristics

Dried nutmeg shall comply with the requirements specified in Annex I (chemical characteristics) and Annex II (physical characteristics). The defects allowed must not affect the general requirements of the product as regards to its quality, keeping quality and presentation in the package.

¹ Having the mature pericarp opened naturally (not opened manually or mechanically) and the red aril known as mace is clearly visible and formed

3.2.3. Classification (optional)

When dried nutmeg is traded as classified, the chemical and physical characteristics in Annexes I and II apply as the minimum requirements.

4. FOOD ADDITIVES

Anticaking agents listed in Table 3 of the *General Standard for Food Additives* (CXS 192- 1995) are acceptable for use in the powdered form of the foods conforming to this Standard.

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 the Prevention and Reduction of Mycotoxins in Spices* (CXS 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), *the Code of Hygienic Practice for Low Moisture Foods* (CXC 75-2015), Annex III Spices and dried culinary herbs, 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 this Standard shall be labelled in accordance with the *General Standard for the Labelling of Prepackaged 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 shall include an indication of the style as described in Section 2.2.

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

8.4.1 Size (optional) only for whole inshell and shelled styles

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 AND SAMPLING

9.1. Methods of analysis

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.

The methods of analysis are described in Annex III, Table 4.

9.2. Sampling Plan

To be developed.

ANNEX I

Table 2. Chemical characteristics for Whole, Broken and Ground/Powdered Nutmeg

Description	Specification		
	Whole	Broken	Ground/ Powdered
Moisture content, % mass fraction, max	10.0	10.0	8.0
Total ash, % mass fraction (on dry basis), max	3.0	3.0	3.0
Acid insoluble ash, % mass fraction (on dry basis), max	0.5	0.5	0.5
Water-insoluble ash, % mass fraction (on dry basis), max	1.5	1.5	1.5
Volatile oils content, (ml/100g), (on dry basis), min	6.5	6.0	5.0

ANNEX II

Table 3. Physical characteristics for Nutmeg

Parameters	INSHELL (With shell)	SHELLED SEED (Without shell)		
	Whole	Whole	Broken	Ground/ Powdered
Extraneous matter ¹ , % w/w (max)	0.5	0.5	0.5	N/A
Foreign matter ² , % w/w (max)	0.5	0.5	0.5	N/A
Mould visible ³ , insect defiled/infested % w/w (max)	10	10	N/A	N/A
Dead whole insects, count/100g (max)	4	4	4	N/A
Insect fragments, count/10g (max)	N/A	N/A	100	N/A
Rodent contamination (hair), count/10g (max)	N/A	N/A	N/A	1
Live insect, by count/100g (max)	0	0	0	0
Mammalian and or other excreta, mg/kg (max)	0	0	11	N/A
Piece of mace, % w/w (max)	0.1	N/A	N/A	N/A
[Shell fragments % w/w (max)]	[1.0]	[0.5]	[0.25]	[-]
[Off size, when sized, % w/w (max)]	[10]	[10]	[-]	[-]
[Broken/damaged among whole only % w/w (max)]	[2]	[3]	[-]	[-]

¹ Vegetative matter associated with the plant from which the product originates - but is not accepted as part of the final product.

² Any visible objectionable foreign detectable matter or material not usually associated with the natural components of the spice plant; such as sticks, stones, burlap bagging, metal etc.

³ Seen by naked eyes. The value shall be divided equally between mould visible and insect defiled/infestation.

N/A: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero.

Annex III

Table 4. Method of Analysis

Provision	Method	Principle	Type
Moisture content	ISO 939	Distillation	I
Total ash	ISO 928	Gravimetry	I
Acid-insoluble ash	ISO 930	Gravimetry	I
Water-insoluble ash	ISO 929	Gravimetry	I
Volatile oils content	ISO 6571	Distillation	I
Calcium content expressed as CaO	ISO 1003	Titration	I
Extraneous matter	ISO 927	Visual examination/ Gravimetry	I
Foreign matter	ISO 927	Visual examination/ Gravimetry	I
Mould visible	ISO 927	Visual examination	IV
Dead insect, insect fragments, rodent contamination	ISO 927	Visual examination	IV
Live insect	ISO 927	Visual examination	IV
Mammalian and or other excreta	Macroanalytical Procedure Manual (MPM) US FDA technical bulletin V.41	Visual examination	IV
Piece of mace	ISO 927	Visual examination	IV

*Latest edition or version of the approved methods should be used