



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

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PROPOSED DRAFT STANDARD FOR DRIED SEEDS – NUTMEG (UPDATED¹)

(Prepared by the Electronic Working Group chaired by Indonesia)

(AT STEP 3)

BACKGROUND

Following the postponement of CCSCH5, the CCSCH Chair together with CCSCH Secretariat, Codex Secretariat and the EWG Chairpersons, in June 2020, held an informal meeting and agreed some follow-up actions for the continuity of the work of the Committee. The informal meeting agreed to extend the Terms of Reference for the EWGs to take into account matters referred by the Codex Committee on Food Labelling (CCFL)² and by the Codex Committee on Methods of Analysis (CCMAS)³; when preparing their working documents:

For the EWG for nutmeg, it was agreed that comments solicited through the Circular Letter (CL 2020/38/OCS-SCH) at Step 3 would be addressed by the EWG with a view to update the working document CX/SCH 21/5/9 that was issued in June 2020.

TERMS OF REFERENCE

The terms of reference for the EWG was to update Appendix I (Proposed Draft Standard for Nutmeg) in document CX/SCH 21/5/9 (issued in June 2020) based on the Comments submitted at Step 3 in response to CL 2020/38/OCS-SCH.

When undertaking the work, the EWG took account the following points:

- The discussion of CCSCH4, particularly the standard template for group standards for dried seeds; and,
- Format for other standard commodity/group commodity under discussion in CCSCH.

ANALYSIS

Attached to this document (Appendix I) is a revision of the Proposed Draft Standard for Dried Seeds with the following summary of changes:

Title - The title is adjusted to be Proposed Draft Standard for Dried Seeds (Nutmeg) to be consistent with the scope which covers group standard for dried seeds.

1. **Scope**

In order to cover the standard template for group standard for dried seeds as well as make clear the scope of this standard, the Scope is revised into:

“This standard applies to dried seeds, in their dried or dehydrated form as spices or culinary herbs, 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 seed for industrial processing”.

2. **Description**

2.1 Product Definitions

¹ This Updated document takes into account the Comments at Step 3, in reply to CL 2020/38/OCS-SCH

² REP19/FL, paras 19-22

³ REP19/MAS paras 12-13

- Taking into account all of the comments as well as the format of other CCSCCH standard, an explanation was added as indicated under Section 2.1.1.
- The EWG seeks the committee's consideration whether the point 2.1.2 and 2.1.3 should remain part of the proposed standard, as this is not mentioned in regular format. Section 2.1.3 contains proposal to replace the wide of nutmeg from 1,5 – 2 cm become 1,5 – 2,5 cm.

2.2 Style

The term or word "powdered" was replaced with "ground/powdered".

2.4 Sizing (Optional)

A new sub-section under Description namely "sizing (optional)" was added to accommodate sizing of nutmeg.

3. Essential Compositions and Quality Factors

3.1 Compositions

The sentence was changed to: "Product as described in Section 2 above, shall conform to requirements set in Annexes I and II".

3.2 Quality Factors

The EWG agreed to the following changes to this Section:

- 3.2.1 Added the term "odour" to the subtitle to read Odour, Flavour and Colour; and replaced the word "dried seeds" with "the products" (in the main body) to make the sentence generic and harmonised with other group standards format
- 3.2.2 Under the Physical Requirements and Chemical Requirements, the format of standard was aligned with the template for group standard for dried seeds; consequently the term "dried seeds" was used instead of nutmeg. This item consists of Physical and Chemical Requirement.
- 3.2.3 With the same reason as above, it is written dried seeds, unless that specific to nutmeg.

4. Food Additives

In order to accommodate all dried seed commodities and uniform format for Section of Food Additives, the phrase of "Only the food additives listed in Table 3 of the *General Standard for Food Additives* (CXS 195-1995) may be used in this ground or powdered product" was proposed. .

8. Labelling

Section on Labelling was rewritten to be consistent with other standards developed by CCSCCH

9. Method of Analysis and Sampling

9.1 Method of Analysis – Consistent with other standards developed by CCSCCH the following sentence was added to the Table of methods of analysis: "Latest edition or version of the approved methods should be used".

Sampling Plan – Consistent with CCSCCH Standards the phrase "to be developed" was added.

Annex of the Proposed Draft

Attached to the Proposed Draft Standard For Dried Seeds (Nutmeg) is detail explanation regarding physical requirements and classification for nutmeg as well as chemical requirements for whole, broken and powder nutmeg. Such explanation is delivered in the form of table. Here are explanations on the revision of the annexed Table of the Proposed Draft:

1. Rearrange the format of the table of Physical Requirements for Nutmeg as proposed by member;
2. Comments from members and observers regarding the unit of the value has been adjusted due to some considerations. For example:
 - a. Extraneous vegetables matter in whole nutmeg with shell (whole inshell) can not be accommodated as it is impossible for such product to have lower such matter than that of shelled seed.
 - b. The proposed value of mould visible in ground/powdered nutmeg can not be accommodated since it is not relevant to measure mould visible in such product.

- c. For the parameter of insect fragment in ground/powdered nutmeg, it is widely known that in the processing of nutmeg powder, fragment insect has been eliminated by application of siever with certain degree of particle size; so, the proposal can not be accomodated.

CONCLUSION AND RECOMMENDATION

The EWG has completed its work for updating the proposed draft Standard Dried Seeds (Appendix I) and it is hereby recommended for consideration by CCSCCH with a view to advance it in the Codex Step process.

PROPOSED DRAFT STANDARD FOR DRIED SEEDS (NUTMEG)

(Step 3)

1. SCOPE

This standard applies to dried seeds, in their dried or dehydrated form as spices or culinary herbs, 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 seed for industrial processing

2. DESCRIPTION

2.1. Product definitions

2.1.1 Dried seeds covered by this Standard (Table 1) are sold in styles as indicated in 2.2.

Table 1. Dried Seeds Covered by This Standard

S/No	Common name	Scientific name
1.	Nutmeg	<i>Myristica fragrans</i> Houtt

2.1.2 [Dried nutmeg is the product prepared from “seeds” of *Myristica fragrans* of the *Myristicaceae* family having reached appropriate degree of development, harvested and post-harvest treated properly, by undergoing operations such as stripping, drying, sorting, cracking, grading, and/or grinding before the final packaging and storage.]

2.1.3 [Nutmeg has variety of shapes from ovoid to broadly ovoid, with variety of sizes about 2 – 3 cm long and 1.5 – 2.5 cm wide]

2.2. Styles

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

2.2.1 Whole Inshell;

2.2.2 Whole shelled seed;

2.2.3 Broken seed; and

2.2.4 Ground/Powdered

2.3. Varietal Types

Varietal type is *Myristica fragrans* Houtt., and not applicable to other species of nutmeg.

2.4 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 labeled on the package.

3. ESSENTIAL COMPOSITIONS AND QUALITY FACTORS

3.1. Compositions

Product as described in Section 2 above shall conform to requirements set 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

3.2.2. Physical and Chemical Requirements

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

3.2.3. Classification

Dried seeds [nutmeg] may be classified according specific requirements into the following grades (Annex I):

3.2.3.1 Grade I / Class I; and

3.2.3.2 Grade II / Class II.

When dried seeds [nutmeg] are traded as ungraded/unclassified, the Physical and Chemical requirements for the lowest grade/class apply as the minimum requirement.

3.3. Classification of “Defectives”

A lot sample 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 3.3 when the number of “defectives”, as defined in Section 3.2, does not exceed the acceptance number of the appropriate sampling plan. 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.

4. FOOD ADDITIVES

Only the food additives listed in Table 3 of the *General Standard for Food Additives* (CXS 195- 1995) may be used in this ground or powdered product.

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. FOOD 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 (CXC 42-1995) and other relevant Codex texts such as codes of hygienic practice and codes of practice.

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 Products

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.

8.3. Country of origin/country of harvest

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

8.3.2. Year of harvest (optional)

8.4. Commercial Identification

8.4.1 Class/ Grade

8.4.2 Size (optional)

8.5. Inspection mark (optional)

8.6. Labeling 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 Analysis

Provision	Method	Principle	Type
Moisture content	ISO 939:1980	Distillation	I
Total ash	ISO 928:1997	Gravimetry	I
Acid-insoluble ash	ISO 930:1997	Gravimetry	I
Water-insoluble ash	ISO 929:1980	Gravimetry	I
Volatile oils content	ISO 6571:2008	Distillation	I
Calcium content expressed as CaO	ISO 1003:2008	Titration	I
Non-volatile ether extract	ISO 1108:1992	Gravimetry	I
Extraneous matter	ISO 927:2009	Visual examination/ Gravimetry	I
Foreign matter	ISO 927:2009	Visual examination/ Gravimetry	I
Mould visible	ISO 927:2009	Visual examination	IV
Dead insect, insect fragments, rodent contamination	ISO 927:2009	Visual examination	IV
Live insect	ISO 927:2009	Visual examination	IV
Mammalian and or other excreta	Macroanalytical Procedure Manual (MPM) USFDA technical bulletin V.41	Visual examination	IV

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

9.2. Sampling Plan

To be developed

Physical requirements and classification for Nutmeg

ANNEX I

Parameters	INSHELL (With Shell)		SHELLED SEED (Without Shell)			
	Whole		Whole	Broken	Ground/ Powdered	
Extraneous vegetables matter ¹ , % w/w (max)	0.5		0.5	0.5	NA	
Foreign matter ² , % w/w (max)	0.5		0.5	0.5	0.1	
Mould visible ³ :						
- % w/w (max)	0.5		10	5	NA	
- % w/w of infested cross-sectional area of half cut seed (max)	NA		25	NA	NA	
Dead whole insects, (max/500g)	NA		4	4	NA	
insect fragments, (max/10g)	2		10	25	NA	
Rodent contamination (hair), % w/w (max/10g)	1		0	1	1	
Live insect, by count/100g (max)	0		0	0	0	
Mammalian and or other excreta, mg/kg (max)	0.25		1	10	NA	
Piece of mace, % w/w (max)	3		NA	NA	NA	
Quality Criteria: Qualitative	CLASS I	CLASS II	CLASS I	CLASS II		
Colour	Dark brown, glossy	Pale brown	NA	NA	NA	NA
Condition of seed Surface	NA	NA	Smooth	Shriveled	NA	NA
Seed condition	Dense, sound when shaken	Dense, sound when shaken	Intact/dense	Intact/dense	NA	NA
Seed Weight (percent of total inshell weight)	≥ 63%	< 63%	NA	NA	NA	NA
Shell Condition	Intact	Cracked/broken	NA	NA	NA	NA

Parameters	INSHELL (With Shell)		SHELLED SEED (Without Shell)					
	Whole		Whole		Broken	Ground/ Powdered		
Quality Criteria: Quantitative	CLASS I	CLASS II	CLASS I	CLASS II				
Well-formed seed (%), min.	NA	NA	98	0	NA	NA		
Shriveled seed (%), max.	NA	NA	2	100	NA	NA		
Number of seeds per kg, max	NA	NA	180	220	NA	NA		
Damaged seeds ⁴ (%), (max)	NA	NA	5	10	NA	NA		
Broken seeds ⁵ (%), max.	NA	NA	2	5	NA	NA		
					CLASS I	CLASS II	CLASS I	CLASS II
Half cut (%)	NA		NA		Min 95	Max 5	NA	
Broken Particle (%)	NA		NA		Max 5	Min 95	NA	
Impurities ⁶ (%), max.	NA		NA		NA		2	5
Particle size (mesh), min.	NA		NA		NA		20	20

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

²Any 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.

³Seen by naked eyes.

⁴Nutmeg seeds that are broken, discoloured or showing signs of bores as a result of infestation of insects so as to affect the quality of the materials \leq 5% of the whole seed surface.

⁵Cracked or broken seed > 5% whole seed surface.

⁶Impurities are derived from nutmeg seed shell, not applicable to other impurities, seen with naked eyes

ANNEX II

Chemical requirements for Whole, Broken and Powder Nutmeg

Description	Specification		
	Whole	Broken	Ground/ Powdered
Moisture Content, % mass fraction (max)	10.0	10.0	8.0
Total ash, % mass fraction (dry basis), max	3.0	3.0	3.0
Acid Insoluble ash, % mass fraction (dry basis) max	0.5	0.5	0.5
Water- insoluble ash, % mass fraction (dry basis) max	1.5	1.5	1.5
Volatile Oils content, % mass fraction (dry basis) max	6.5	6.0	5.0
Calcium as Ca-Oxide, % mass fraction (dry basis), max	0.35	0.35	NA