

PROPOSED DRAFT STANDARD FOR DRIED SEEDS (NUTMEG)

(For adoption at Step 5)

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 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 as mentioned in Table 1, and are sold in styles as indicated 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 ranging from 2 – 3 cm long and from 1.5 – 2.5 cm wide. Nutmeg kernels have a slightly wrinkled like surface.

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 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 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.

3.2.3. Classification (optional)

Dried whole nutmeg inshell and shelled may be classified according specific requirements into the grades contained in Annex II.

When dried nutmeg are traded as classified, the chemical and physical characteristics in Annex 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 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 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)

8.5. Labelling 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

As described in Annex III, Table 4.

9.2. Sampling Plan

To be developed.

ANNEX I

Table 2. Chemical characteristics 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, (mL/100g) minimum	[6.5][3.5-11]	[6.0] [3.0-11]	[5.0] [2.5-11]
[Calcium as Ca-Oxide, % mass fraction (dry basis), max]	0.35	0.35	NA

ANNEX II

Table 3. Physical requirements and classification 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	NA
Foreign matter ² , % w/w (max)	0.5	0.5	0.5	NA
[Mould visible ³ , insect defiled/infested % w/w (max)]	0.5 [10]	[10] [5]	[4][NA]	NA
Dead whole insects, count/100g (max)	4	4	4	NA
[Insect fragments, count/10g (max)]	NA	NA	NA	100
Rodent contamination (hair), count/10g(max)	NA	NA	NA	1
Live insect, by count/100g (max)	0	0	0	0
Mammalian and or other excreta, mg/kg (max)	0	0	11	NA
Piece of mace, % w/w (max)	NA	NA	0.5	NA

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.

⁴ Nutmeg 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.

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

Text for N/A footnote: 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 939:1980	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
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
Piece of mace	ISO 927:2009	Visual examination	IV

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