

**CODEX COMMITTEE ON SPICES AND CULINARY HERBS
3rd Session**

PROJECT DOCUMENT

**PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR NUTMEG (*Myristica fragrans* Houtt)
(Proposal Submitted by Indonesia)**

Introduction

Nutmeg and Mace from *Myristica fragrans* Houtt or fragrant nutmeg are important commodities widely used in food industry. Nutmeg used in the natural food flavouring in breads, syrups, beverages, and candy. Nutmeg is the seed of the fruit of the plant *Myristica fragrans* Houtt of the Myristica family, already dried and unshelled, round and oval shape. Mace is arillus red to light yellow that exists between the flesh and seed of the fruit of the plant *Myristica* spp, cleaned and dried.

Nutmeg is native to the Moluccas Islands of Indonesia, but it is also grown in Penang Island in Malaysia, in the Carribean (particularly Grenada), Papua New Guinea, Guatemala and Costa Rica, in the southern state of Kerala in India, Sri Lanka and in the island of Zanzibar. The largest importing countries are European Union, USA, Japan and India. The biggest re-exporting countries are Singapore and the Netherlands. Each country has its own standards in production and trade, it makes harmonization of nutmeg standard become necessary.

This work aims at establishing a worldwide standard quality, facilitate international trade of Nutmeg from *Myristica fragrans* Houtt of the Myristica family.

1. The Purpose and Scope of the Standard

The scope of the standard will cover Nutmeg seed from *Myristica fragrans* Houtt of the Myristica family to be supplied to the consumers or the food industry in its whole, crushed and powdered form; and based on quality characteristics like colour, odour, mould, extraneous matter, insect, and moisture content. Chemical content like ash total, acid insoluble ash and essential oil are also considered.

2. Relevance and Timeliness

Nutmeg is one of the oldest traded commodities in the world. The difference interests between the producers and consumers generate diversity of standards. This causes difficulties in trade, especially in consumer protection. Therefore, the harmonization of standards become necessary and the standard will be the world's single reference standard. Nutmeg became a universal commodity and consumed by millions of people as well as a number of industry segments such as food. Therefore nutmeg hygiene and quality standard is needed.

Nutmeg is used extensively in whole, crushed, powdered and in an essential oils form in the food industry. Harmonization will reduce the difference in standards between countries producers, re-exports and consumers. Nutmegs' standard is very relevant to be developed into globally accepted standard through harmonization based on its properties especially chemicals and physical characteristics. Harmonization of nutmeg standard will be a reference in consumer protection and facilitate fair trade in accordance with international agreements as well as a reference internationally agreed through consensus between producers, consumers and traders countries.

Table 1. Nutmeg products and their uses

Nutmeg Product	Uses
1. Dried whole, ground nutmeg	Flavouring in food industry: meat & dairy products (sausages, soups, spice mixes, baked products, eggnog, ice cream etc.) - both domestic and industrial use.
2. Mace – Dried, whole , ground	Domestic culinary uses, Industrial culinary uses as flavourings for sweet foods, cakes, doughnuts, dairy products,

3. Main aspects to be covered	WORLD EXPORT VOLUME	
The main aspects of the product to be covered in the standard are the minimum quality and safety requirements to protect consumer's health and ensure fair practices in food trade: Establish the minimum quality requirements cleanliness specifications and defect characteristics of nutmeg like size, colour, odour, wrinkled and extraneous matter, insect, broken, moisture content, ash total, acid insoluble ash, calcium (CaO), essential oil and aflatoxin levels.	1999 11.741 tonnes 2000 12.455 tonnes 2002 13.082 tonnes 2003 13.111 tonnes 2004 15.443 tonnes 2005 12.561 tonnes 2006 13.547 tonnes 2007 14.746 tonnes 2008 13.180 tonnes 2009 14.332 tonnes 2010 14.869 tonnes	

Provisions concerning tolerances with respect to quality and size allowed in every classes.

Provisions concerning presentation – the uniformity of the packaged product with respect to same origin, quality, size, etc. Provisions for the marking or labelling of the product in accordance with the *General Standard for the Labelling of Pre-packaged Foods*,

Provisions for contaminants maximum levels, pesticide residues and hygiene with reference to pre-existing Codex Standards

Reference to Methods of Analysis and Sampling.

4. Assessment against the Criteria for the Establishment of Work Priorities

General criterion

Consumer protection from the point of view of health, food safety, ensuring fair practices in the food trade and taking into account the identified needs of developing countries.

- Consumer protection from the point of view of health and the prevention of fraudulent practices.
- Quality of the produce to meet consumer needs and the minimum requirements of food safety.
- Standardization of products very beneficial for many countries.

Criteria applicable to commodities

(a) Volume of production and consumption in individual countries and volume and pattern of trade between countries:

Nutmeg is one of the spices of the most traded in the world with a total volume of exports from producing countries such as Indonesia, Sri Lanka, India and Grenada were as in Table 2 below:

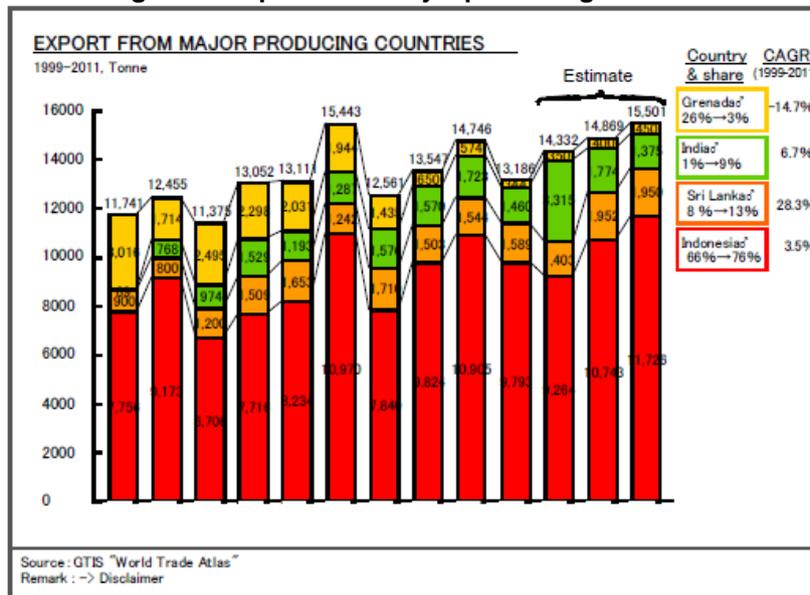
Table 2. World Export Volume

Nutmeg Product		Uses
1. Dried whole, ground nutmeg		Flavouring in food industry: meat & dairy products (sausages, soups, spice mixes, baked products, eggnog, ice cream etc.) - both domestic and industrial use.
2. Mace – Dried, whole , ground		Domestic culinary uses, Industrial culinary uses as flavourings for sweet foods, cakes, doughnuts, dairy products,
	WORLD EXPORT VOLUME	
YEAR		
1999	11.741 tonnes	
2000	12.455 tonnes	
2001	11.375 tonnes	
2002	13.052 tonnes	
2003	13.111 tonnes	
2004	15.443 tonnes	
2005	12.561 tonnes	
2006	13.547 tonnes	
2007	14.746 tonnes	
2008	13.180 tonnes	
2009	14.332 tonnes	
2010	14.869 tonnes	
2011	15.501 tonnes	
	WORLD RE- EXPORT VOLUME	
YEAR		
1999	6.572 tonnes	
2000	6.099 tonnes	
2001	4.714 tonnes	
2002	4.581 tonnes	
2003	4.820 tonnes	
2004	4.243 tonnes	
2005	4.092 tonnes	
2006	3.757 tonnes	
2007	3.979 tonnes	
2008	3.761 tonnes	
2009	3.486 tonnes	
2010	3.218 tonnes	

Source: GTIS "World Trade Atlas"

In 1999-2011, Indonesia export market share was 66-76%, Sri Lanka was 8-13%, India was 1-9% and Grenada was 26-3%.

Figure 1. Export form Major producing Countries



Total volume of re-export nutmeg from traders countries such as Netherlands, Singapore, United Arab Emirates and Vietnam were as in Table 3 below.

Table 3. World Re-Export Volume

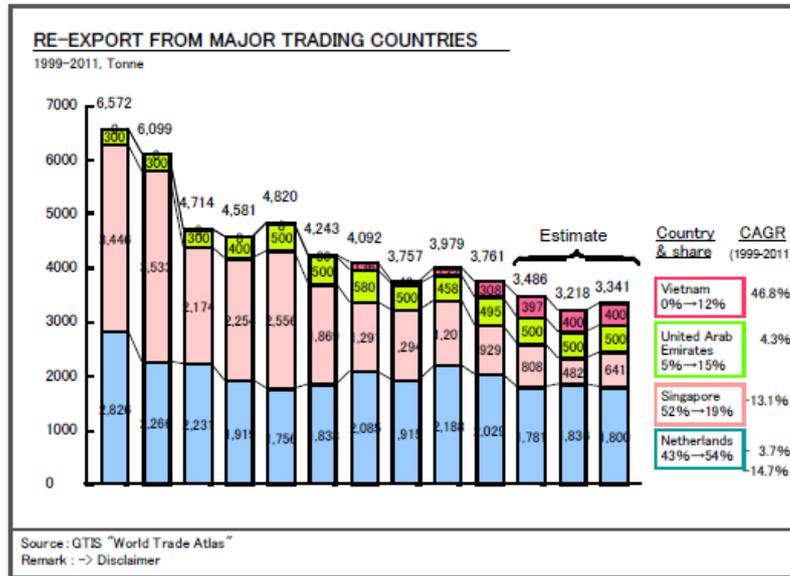
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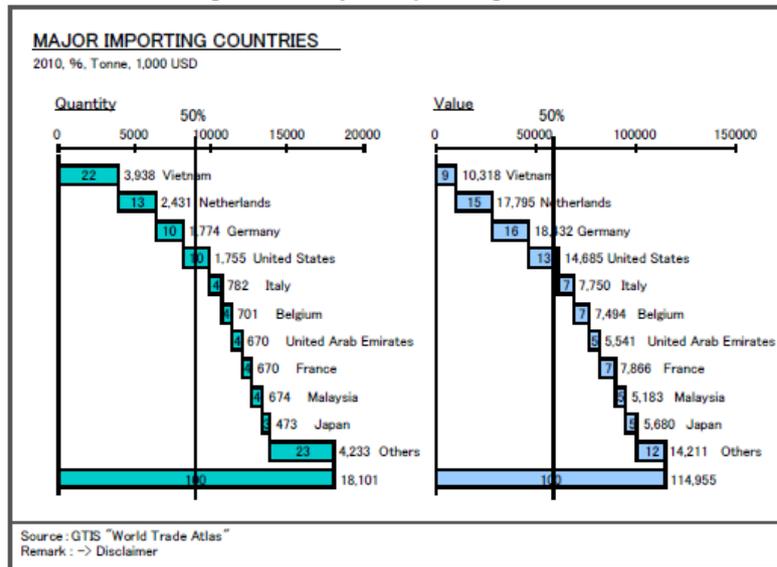
In 2009-2011, Netherland re-export market share was 43%-54%, Singapore were 52%-19%, United Arab Emirates was 5%-15% and Vietnam was 0-12%.

Figure 2. Re-Export form Major Trading Countries



Major importing countries of nutmeg are European Union (Netherlands, Germany, Italy, Belgium and France), United States, Vietnam, Japan, United Arab Emirates and Vietnam. In 2010, total market size of import nutmeg was US\$ 115.000. European Union is the largest importers.

Figure 3. Major Importing Countries



Source: ITC, Geneva

Table 4. Pattern of International Trade of Nutmeg

Nutmeg Product	Uses
1. Dried whole, ground nutmeg	Flavouring in food industry: meat & dairy products (sausages, soups, spice mixes, baked products, eggnog, ice cream etc.) - both domestic and industrial use.
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Source: ITC, Geneva YEAR	WORLD EXPORT VOLUME
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(b) Diversification of national legislations and apparent resultant or potential impediments to international trade:

International organizations like ISO have dealt with the standards for Nutmeg. Many conventions including that of the International Spice Conference (ISC, 2013) has addressed the issue of harmonization of grades and specifications for Nutmeg. Nutmeg being produced in several countries and traded globally not only by the exporters but also through re-exports by importers is subject to various national legislations. To overcome the resultant or potential impediments to international trade, it is essential to incorporate all existing different standards in a single improved comprehensive standard acceptable across board internationally.

(c) International or regional market potential:

Consumption and total imports of Nutmeg are expected to increase along with the increase of world population and economic development. On average, between 2009 and 2010, 17.520 tons and 37.439 tons for exports and imports respectively were traded globally.

(d) Amenability of commodity to standardization:

The characteristics of nutmeg, from its cultivation through to harvest, cultivar varieties, quality and packaging all lend to adequate parameters for the standardization of the product. This will include defining quality characteristics like size, colour, odour, ruptured and wrinkled, uniformity, weight, mould, extraneous matter, insect, broken, moisture content, ash total, acid-insoluble ash, calcium (CaO), essential oil and aflatoxin level which should be considered to protect the health of consumers and ensure fair practices in food trade.

(e) Coverage of the main consumer protection and trade issues by existing or proposed general standards.

There is no general commodity standard covering nutmeg under Codex and so the new work will facilitate nutmeg trade and enhance consumer protection by establishing an internationally agreed quality standard and thus harmonise the many existing standards.

(f) Number of commodities which would need separate standards including whether raw, semi-processed or processed.

The standard will be for Nutmeg from *Myristica fragrans* Houtt of the Myristica family.

(g) Work already undertaken by other international organization in this field

ISO specification for Nutmeg (ISO 6577:2002)

5. Relevance to the Codex Strategic Objectives.

This proposal is consistent with the Strategic Plan of the Codex Alimentarius Commission 2014-2019, in particular Objective 1.1, 1.3, 2.3 and 3.1 and aims at setting up international accepted minimum quality requirements of nutmeg for human consumption.

6. Information on the relation between the proposal and other existing Codex documents

This proposal is for a new global standard and has no relation to any other existing Codex text on this item, except that this standard will make reference to relevant standards and related texts developed by general subject Committees.

7. Identification of any requirement for and availability of expert scientific advice

No need for expert scientific advice is foreseen at this stage. Published research documents by international bodies will be referred in the process of preparing the standard.

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for.

The technical input from ISO might be sought and used in the development of the standard.

9. Proposed Time Schedule

The following tentative timeline is proposed, subject to the decisions taken during the Second Session of Codex Committee on Spices and Culinary Herbs:

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2003	4.820 tonnes
2004	4.243 tonnes
2005	4.092 tonnes
2006	3.757 tonnes
2007	3.979 tonnes
2008	3.761 tonnes
2009	3.486 tonnes
2010	3.218 tonnes
2011	3.341 tonnes

Year	Import		Export	
	Quantity (Tons)	Value (US\$ Thousands)	Quantity (Tons)	Value (US\$ Thousands)
2009	19135	119.190	20.890	109.361
2010	102656	147.310	20.489	134.234
2011	24073	259.188	23.767	253.285
2012	3891	37.944	4.936	50.040

DATE	ADVANCE AND PROCEDURES
3rd CCSCCH	Consideration of new work by the 3rd session of CCSCCH
July 2017	Critical review of proposal by CCEXEC;

