



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

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**PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR TURMERIC
(CCSCH Group category – Dried Roots, Rhizomes and Bulbs)**

(Project Document Submitted by Iran)

Introduction

1. Purpose and the scope of the standard

The scope of the work is to establish a worldwide standard for Turmeric (*Curcuma longa*) belonging to the *Zingiberaceae* family as whole, split, crushed or ground.

The objective of the standard is to consider the essential quality characteristics of dried turmeric as a spice in many culinary products including for catering purposes or for repackaging, as required to aid international trade in this product.

2. Relevance and timeliness

Due to the growing trend of worldwide turmeric production, exporting and trade, it is necessary to establish a commodity standard covering the safety, quality, and hygiene and labeling in order to have a reference that has been internationally agreed by consensus between the producing, consuming and trading countries. The codex standard for dried turmeric will help to protect consumers' health and to promote fair trade practices in accordance with the different international agreements.

The main producers of turmeric are India, Pakistan, China, Haiti, Jamaica, Peru, Taiwan and Thailand.

The main importers are United State of America, India, UK, Iran, Malaysia, Egypt, Netherlands, Germany, Japan and United Arab Emirates based on UN TRADE data during 2016-2020.

3. Main aspects to be covered

The standard will include characteristic relating to the form, grades, purity, contaminants, labeling, packaging as well as safety requirements.

The most relevant items which may be considered are related to:

- Establishing the minimum requirements of dried turmeric which shall be complied with, independently from the quality parameters and other requirements regardless of class.
- Defining the grades to classify dried turmeric in accordance with its characteristics.
- Establishing the tolerance as regards quality, quantity and size that may be permitted in dried turmeric contained in a package.
- Provisions to be considered relating to the uniformity of the packaged product and the packaging used.
- Provisions for the labeling and marking of the product in accordance with the General Standard for the labeling of Prepackaged Foods.
- Provisions for pesticides and contaminants with the reference to the General Standard for Contaminants and toxins in food.
- Provisions for hygiene and handling with the reference to the general principles of food hygiene and other relevant codes of hygiene practices.
- References to methods of analysis and sampling

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

General criterion

Consumer protection in case of food safety, health care, fair trade and protecting the needs of developing countries should be taking account.

The proposal new standard will meet this criterion by:

*Promoting consumer protection and preventing of fraudulent practices

*Providing greater assurance of quality of the product to meet consumer needs and minimum requirements of food safety

*Arriving at levels of standardization based on the properties of different varieties to meet industrial and consumer needs with exactness and credibility

*The drafting standard would be beneficial to many countries in general and more particular in the case of developing countries because they are major producers, exporters and consumers of turmeric.

Criteria applicable to commodities:

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

Turmeric is one of the most traded in the world with a total volume of exports and re-exports. There are as yet no exact figures on the global production data of turmeric but these will naturally become available as the project advances. India, Pakistan, China, Malaysia and Tanzania are among main countries dealing with turmeric production. Turmeric production was 938,955 tonnes in 2019-20.

Turmeric (curcuma) were the world's 3271st most traded product, with a total trade of \$304M. Between 2018 and 2019 the exports of turmeric (curcuma) grew by 0.28%, from \$303M to \$304M. Trade in turmeric (curcuma) represent 0.0017% of total world trade. The quantity imported of turmeric by most countries is increasing right after the **COVID** outbreak. Turmeric sales was continuously increasing 25% to 30% overall in 2020-21.

(b) Diversification of national legislations and apparent resultant or potential impediments to international trade:

Import and export take place between many countries. So, establishing international standard criteria based on codex standard is necessary for International trade and consumer support.

Turmeric is traded according to purity, quality specification and forms based on mutual agreement, which lead to having different standards for each country.

Many conventions including those of the world Spice Congress and the World Spice Organization have addressed the issue of harmonization of grades and specification for turmeric. Turmeric being produced in some developing 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 impediment to international trade, it is essential to incorporate all existing diverse standards in a single comprehensive standard acceptable across world internationally.

This would reduce possible barriers to trade and would provide a comprehensive framework setting out the minimum internationally acceptable requirements for turmeric.

This new work will provide a recommendation, which countries could use to develop their own quality and grading standards for turmeric and, when applied internationally, may assist in providing a harmonized approach.

(c) International or regional market potential

The trade of turmeric by most countries is increasing. The major exporters are India, Netherlands, UK, Germany USA according to ITC data. USA, India, UK, Germany, Netherlands, Japan, Iran and UAE are the biggest importer countries of dried turmeric according to statistic of FAOSTATE. Global demand for turmeric is expected to increase in future, mainly on account of increased culinary applications and functional foods. It can lead to increase turmeric trade. Due to importance the food safety, hygiene, quality control of turmeric specifications, it's necessary to develop an international harmonized standard.

Table1 - Trade of Turmeric between countries in 2020

Country	Value exported in 2020 (USD thousand)	Quantity exported in 2020 (Tons)
India	232,380,631	177,788

Netherlands	11,837,015	3,214
Germany	6,784,632	1,499
United Kingdom	4,925,626	903
USA	3,574,612	657
Spain	3,354,245	1,064
Japan	2,423,056	21
Belgium	1,154,344	363
Pakistan	605,957	277
Denmark	504,475	69

Sources: ITC calculations based on UN COMTRADE statistics

Table 2- Trade of Turmeric between countries in 2020

Country	Value Imported in 2020 (USD thousand)	Quantity Imported in 2020 (Tons)
USA	47,615,805	12,917
India	31,229,035	25,207
United Kingdom	17,220,500	10,408
Germany	15,065,070	5,630
Netherlands	11,850,518	5,805
Japan	9,312,280	4,651
Canada	7,217,180	2,067
South Africa	4,808,519	3,309
Egypt	4,270,670	1,690
Spain	3,999,627	2,164

Sources: ITC calculations based on UN COMTRADE statistics

(d) Amenability of commodity to standardization

The characteristics of dried turmeric its cultivation to retail sale e.g. cultivar varieties, composition, quality characteristics, processing, packaging, etc. all lead to adequate parameters for the standardization of the product. Taking into account that technical information is available and certain degree of harmonization at regional/international levels has already been achieved on certain aspects relevant to consumer's protection and trade facilitation as mentioned in point (b).

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

There is no general commodity standard covering turmeric under Codex. The proposed standard will heighten consumer protection and facilitate turmeric trade by establishing an internationally agreed quality standard.

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

A single standard for turmeric will cover all forms of turmeric traded worldwide. The different forms of turmeric like crushed, sliced, powdered or whole will be examined under this standard individually.

(g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body (dies)

The existing standards which may be considered while developing a codex standard for turmeric are:

ISO –5562:1983, Turmeric, whole or Ground(powdered)- Specification

ISO –5566:1982, Turmeric-Determination of coloring Power-Spectrophotometric Method

European Spice Association quality minima document

American Standard Trade Association (ASTA)

5. Relevance to the Codex strategic objectives

The elaboration of a Codex standard for turmeric is according to strategic objectives that to promote the maximum application of codex standards by countries in their national legislation and to facilitate international trade by protecting the health of the consumers. This standard is important to guarantee quality, as well as providing new opportunity for the producing this healthy and beneficial product and promoting international market.

Therefore, this proposal is consistent with the Strategic Plan of the Codex Alimentarius Commission 2014-2019, in particular strategic objectives 1.1, 1.3, 2.3 and 3.1.

Goal 2- Promoting Widest and Consistent application of scientific principles and Risk analysis

The proposed work will promote the elaboration of Codex commodity standards based on the rigorous scientific analysis of collected data.

This Codex Standard will facilitate fair trade of turmeric, as the quality, purity parameters and food safety. The purity of turmeric allows to provide proper criteria for the quality control of these product.

So, elaborating of this standard can help avoiding the risks such as lack of Good Hygienic Production, non-compliance with grading, adding artificial color.

in addition, this proposed standard can be a reference for solving food safety issues such as microbial contamination, heavy metals, contaminants, residue pesticides, food additives

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

This is proposed as 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 as follows:

- Principles and Guidelines for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997) “
- General Principles of Food Hygiene (CAC/RCP 1-1969)
- Data bases related to the maximum limits for pesticides residues issued by Codex Committee on Pesticides Residues in Food (CCPR).
- General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 1993-1995)
- Code of Hygienic Practice for Spices and Dried Aromatic Herbs (CAC/RCP 42-1995)
- General Standard for Labelling of Pre Packaging Foods (CXS 1-1985)

7. Identification of any need for any requirements for and availability of expert scientific advice

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

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

The technical inputs from other external bodies such as International Organization for Standardization (ISO), American Spice Trade Association (ASTA) and European Spice Association (ESA) shall be welcomed for this work.

9. Proposed Time Schedule

It is expected that the development of this standard would be conducted in three CCSCH sessions or less, depending on the agreement reached by the Committee.