

APPENDIX VI

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON DEVELOPMENT OF A STANDARD FOR FRESH TURMERIC

(Prepared by Fiji)

1. Introduction

Curcuma is an important genus in the family *Zingiberaceae*. Various species have been used as spices for flavouring, colouring food, and drink for a long time. Its generic name originated from the Arabic word *kurkum*, meaning “yellow,” and most likely refers to the deep yellow rhizome color of the true turmeric (*Curcuma longa* L.). Besides *C. longa*, there are several species of economic importance, such as *Curcuma aromatica* Salisb., *Curcuma amada* Roxb., *Curcuma caesia* Roxb., *Curcuma aeruginosa* Roxb., and *Curcuma zanthorrhiza* Roxb.

There are 93 species belong to *Curcuma* genus is available in the world now (WFO 2020). It is found throughout Southeast Asia with a few species extending to China, Australia and the South Pacific. All of these areas have traditional culinary and medicinal uses going back to pre-history.

True turmeric is obtained from *Curcuma longa* L., a tuberous herbaceous perennial plant with yellow flowers and wide leaves. It is a member of the ginger family and grows in tropical climates.

Turmeric, a spice long recognized for its health benefits, has received interest from both culinary enthusiasts and the scientific world. The orange-yellow polyphenol curcumin is the major source of the most active component.

2. The purpose and the scope of the standard

The scope of the work is to establish a worldwide standard for fresh turmeric rhizomes to be presented to support the trade of good quality fresh turmeric for direct consumption and or for further food processing, as required.

The objective is to develop a Codex standard for fresh turmeric based on measurable characteristics, specifically quality criteria and any other factors for developing an international document to protect consumer's health and facilitate international trade good quality fresh turmeric.

Turmeric is an important culinary plant considered a golden resource with massive export potential as a cooking spice, beverage, health drink, and other potential benefits. *Curcuma longa* L. syn. *Curcuma domestica* Val., true or common turmeric, is the most economically valuable member of the genus.

The rhizome is used, which is ovate or pear-shaped and resembles the bulb known round turmeric, measuring 2.5 - 7.0 cm in length and 2.5 cm in diameter with finger-like projection branching off. It is yellowish brown with a dull orange from the interior section that looks bright yellow when powdered.

Developing a worldwide standard for fresh turmeric will set a platform for the supply of good-graded turmeric, facilitating market access opportunities and fair trade. This will help protect consumer health from consuming contaminated low-graded products and minimize food fraud risks along the supply chain.

3. Main Aspects to be covered

The standard will cover characteristics related to identification and quality in all aspects as well as safety requirements:

- Product definition: Defining the product as fresh turmeric, including the common, trade, and scientific name.
- Provisions concerning Quality: including minimum requirements with special provisions for tolerance and class; listing the different forms of fresh turmeric (whole); including provisions for colour, odour...etc.
- Provisions concerning size, which shall be determined by the weight of the turmeric; Tolerance with respect to quality and size allowed for packaging.
- Provisions concerning presentation: Including uniformity of the contents of the package and quality of packaging.
- Provisions for the labelling and marking of the product in accordance with the CODEX standard for the labelling of pre-packaged foods.
- Provisions for food additives, contaminants, pesticide residues, and hygiene with reference to pre-existing Codex documents.

- References to Methods of Analysis and Sampling.

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

General Criterion Ensuring consumer health protection under food safety guidelines and practices, promoting good quality food products, and enhancing fair trade in foods. The proposed new standard will meet this criterion:

- Maintaining the quality of the fresh turmeric with greater assurance to meet consumer satisfaction.
- Minimise fraudulent activities along the fresh turmeric supply chain.

(a) Criteria applicable to commodities

Overview of Global Turmeric Market Top Exporting and Importing Countries 2022: the top 10 exporting countries of Turmeric 2022 were India, Myanmar, Netherlands, Fiji, Indonesia, Germany, Vietnam, UAE, Bangladesh, and the United States of America respectively, table (1). The top 10 importing countries of Turmeric in 2022 were the United States of America, Iran, Bangladesh, India, China, Morocco, Germany, Netherlands, Malaysia, and Saudi Arabia, respectively (table 2).

(a) Table 1 - Top 10 exporting countries of Turmeric with a summary of price and seasonality data for each market (2022)

Exporters	Value exported in 2022 (USD thousand)	Quantity exported in 2022 (Tons)	Quantity exported in 2022 (Tons)	Annual growth in value between 2018-2022 (%)	Annual growth in quantity between 2018-2022 (%)	Annual growth in value between 2021-2022 (%)	Share in world exports (%)
India	214816	160744	160744	-1	7	-5	62.7
Myanmar	17265	29386	29386	3	9	71	5
Netherlands	14369	4519	4519	17	16	-8	4.2
Fiji	9947	2540	2540	54	28	-6	2.9
Indonesia	9244	10126	10126	-5	4	3	2.7
Germany	7564	1950	1950	14	16	-3	2.2
Viet Nam	7353	5005	5005	-22	6	-40	2.1
UAE	5808	6110	6110	27	35	48	1.7
Bangladesh	5797	2077	2077	10	7	-6	1.7
United States	4693	825	825	10	6	1	1.4

Table 2 - Top 10 Importing countries of Turmeric with a summary of price and seasonality data for each market (2022).

Importers	Value imported in 2022 (USD thousand)	Quantity imported in 2022 (Tons)	Annual growth in value between 2018-2022 (%)	Annual growth in quantity between 2018-2022 (%)	Annual growth in value between 2021-2022 (%)	Share in world imports (%)
United States	49821	10756	12	5	-20	13.4
Iran	29805	25748	7	8	11	8
Bangladesh	28663	28807	60	56	-2	7.7

Importers	Value imported in 2022 (USD thousand)	Quantity imported in 2022 (Tons)	Annual growth in value between 2018-2022 (%)	Annual growth in quantity between 2018-2022 (%)	Annual growth in value between 2021-2022 (%)	Share in world imports (%)
India	27419	19202	-10	-11	-12	7.4
China	16163	21022	111	99	171	4.3
Morocco	15491	10739	5	2	54	4.2
Germany	14842	5343	6	6	-11	4
Netherlands	13839	6273	18	18	-5	3.7
Malaysia	12011	9276	2	3	-2	3.2
Saudi Arabia	11404	6620	12	4	9	3.1

(Source: *UNSD - COMTRADE & ITC Statistics*)

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

Trade of fresh turmeric under various market criteria is a challenge to most countries regarding supply and demand context, thus, signifies the need for developing a harmonized international criterion based on the Codex standard. Therefore, the new work would provide internationally recognized standards to enhance international trade and accommodate the importer's requirements. The ISO has developed a standard for turmeric (ISO-5562-1983) with ISO Management System and ISO Harmonized Structure, and other associations like the American Spice Trade Association (ASTA) and USDA NOP certification have dealt with some turmeric specifications. To overcome the resultant or potential impediments to international trade, it is essential to integrate all existing standards in a single improved comprehensive standard acceptable internationally. This warrants the establishment of a Codex standard as per the Procedural Manual.

(c) International or regional market potential

Global demand for fresh turmeric continues to rise, driven by its increasing demands for application in foods, and other potential benefits. In 2022, Fiji was listed as the fourth largest fresh turmeric supplier in the global market, and there are huge opportunities to tap into promising markets such as Europe. Fiji exports the commodity to the following countries: the USA, New Zealand, Japan, Australia, China, and Germany.

(d) Amenability of commodity to standardization

The standard will include the characteristics of fresh turmeric composition, quality, and packaging criteria.

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

There is no general commodity standard covering fresh turmeric. The new work will enhance consumer protection and facilitate trade by establishing an internationally agreed-upon and recognized quality standard.

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

The proposed standard will cover the fresh turmeric in its fresh rhizomes and fingers (whole).

(g) Work already undertaken by other organizations in this field

- i. ISO Standard for Turmeric - Specification (ISO-5562-1983),
- ii. Guidance from the American Spice Trade Association 2017(Clean Safe Spices),
- iii. USDA NOP Organic Certification.

5. Relevance to Codex Strategic Objectives

The elaboration of a Codex standard for fresh turmeric is according to Codex strategic objectives to promote the maximum application of Codex standards by countries in their national legislation and to facilitate fair international trade by protecting the health of the consumers. This standard is important to guarantee the

quality, as well as providing new opportunities for producing this healthy and beneficial product and promoting new opportunities for producing healthy and beneficial products and promoting them to the international market.

This proposal is consistent with the Codex Strategic Plan for 2020-2025, particularly strategic Goal 2—Objective 2.2 and Goal 3—Objectives 3.1, 3.2, and 3.3.

6. Information on the Relation between the Proposal and Other Existing Codex Documents As Well As Other Ongoing Work

This proposal is a new Codex Standard for Fresh Turmeric complementing the Standard for dried turmeric. This standard will include references to relevant pre-existing Codex texts developed by general subject committees, as follows:

- *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995)
- *General Principles of Food Hygiene* (CXC 1-1969)
- *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CXC 53-2003)
- *Principles and guidelines for the Establishment and Application of Microbiological Criteria for Foods* (CXG 21-1997)
- Databases related to the maximum limits for pesticide maximum limits for pesticide residues issued by the Codex Committee on Pesticides Residues in Food (CCPR).
- *General Standard for the Labelling of Pre-packaged Foods* (CXS 1-1985)
- *General Standard for food additives* (CXS 192-1995)

7. IDENTIFICATION OF REQUIREMENT FOR AVAILABILITY OF EXPERT SCIENTIFIC ADVICE

No expert scientific advice is foreseen at this stage. However, published research documents by international bodies will be consulted in preparing the standard.

8. IDENTIFICATION OF NEED FOR TECHNICAL INPUT TO THE STANDARD FROM EXTERNAL BODIES

Technical input from the International Standards Organization (ISO), American Spice Trade Association (ASTA), USDA NOP, European Spice Association (ESA), and other relevant bodies may be sought when developing this standard.

9. PROPOSED TIMELINE FOR COMPLETION OF NEW WORK

It is expected that the development of this standard to be conducted in three CCFFV meetings or less, depending on the agreement reached by CCFFV.