



Food and Agriculture
Organization of the
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World Health
Organization

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Agenda item 4.1

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

Forty-seventh Session

WORK OF THE CODEX COMMITTEE ON SPICES AND CULINARY HERBS (CCSCH)

1. The Commission is invited to adopt the standards and related texts submitted for final adoption as listed in **Part 1** of this document.
2. The Commission is also invited to adopt the draft standard submitted for adoption at Step 5 as listed in **Part 2** of this document. If adopted, it will be advanced to Step 6 for further comments and consideration by CCSCH8.
3. The comments received regarding these standards and related texts from CCSCH7 submitted for adoption are contained in CX/CAC 24/47/3 Add.1.
4. The Commission is furthermore invited to approve new work proposals from CCSCH7 as listed in **Part 3** of this document and compiled in Annexes I, II, III and IV. The Commission is invited to consider these proposals in the light of its *Codex Strategic Plan 2020-2025* and the *Criteria for the establishment of work priorities* and *Criteria for the establishment of subsidiary bodies of the Codex Alimentarius Commission*.
5. The critical review of work from CCSCH7 was undertaken by the 86th Session of the Executive Committee of the Codex Alimentarius Commission (CCEXEC86).

Part 1 – Standards and related texts submitted for final adoption

Standards and related texts	Reference	Job No.	Step
Standard for spices derived from dried or dehydrated fruits and berries – small cardamom	REP24/SCH, paragraph 30(i), Appendix III	N01-2021	8
Standard for spices derived from dried or dehydrated fruits and berries – allspice, juniper berry, and star anise	REP24/SCH, paragraph 48(i), Appendix IV	N03-2021	5/8
Standard for spices derived from dried or dehydrated roots, rhizomes and bulbs – turmeric	REP24/SCH, paragraph 85(i), Appendix V	N02-2021	5/8

Part 2 – Standards and related texts submitted for adoption at Step 5

Standards and related texts	Reference	Job No.
Draft standard for spices derived from dried or dehydrated fruits and berries – vanilla	REP24/SCH, paragraph 70(i), Appendix V	N03-2021

Part 3 – Proposals to undertake new work or revise a standard

Text	Reference and project document
New work proposal on a standard for sweet marjoram	<ul style="list-style-type: none"> • REP24/SCH, Appendix VII • Annex I of this document
New work proposal on a standard for dried seeds-coriander	<ul style="list-style-type: none"> • REP24/SCH, Appendix VIII • Annex II of this document
New work proposal on a standard for large cardamom	<ul style="list-style-type: none"> • REP24/SCH, Appendix IX • Annex III of this document
New work proposal on a standard for cinnamon	<ul style="list-style-type: none"> • REP24/SCH, Appendix X • Annex IV of this document

PROJECT DOCUMENT
PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR SWEET MARJORAM
(For approval)

Introduction

Sweet marjoram (*Oreganum majorana* L. syn. *Majorana hortensis* Moench.) Lamiaceae family, is one of the important medicinal and aromatic plants. Sweet marjoram is a bushy herbaceous plant grown as a culinary herb, it is indigenous to the Mediterranean, Türkiye, Western Asia, it grows well in Upper Egypt. The subtle and delicate flavour of sweet marjoram is due to essential oil, the principal components of which are terpinene and terpineol. The active principles are found chiefly in the aerial parts (herb). Dried sweet marjoram herb and the oil are used as spices in the food industry, as well as for their preservative and medicinal properties. This herb has generated a lot of interest from the researchers that has led to a series of publications since 1960, also it is considered as an important economic agricultural export crop. Sweet marjoram was known to the ancient Greeks and Romans as a symbol of happiness.

1. The purpose and scope of the standard

The scope of the work is to establish a worldwide standard for dried whole, crushed and ground sweet marjoram to be offered for industrial food production and direct consumption, including for catering purposes or for repacking, as required.

The objective is to develop a Codex standard 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.

2. Relevance and timeliness

Sweet marjoram is native to the Mediterranean region and Southern Europe and is intensively cultivated in Europe, North Africa, Asia and both North and South America. Today, sweet marjoram is used largely for consumption, it is particularly appreciated for the taste it lends meat dishes, poultry, fish, sausages, pizzas, salads, egg, and vegetable preparations.

Developing a worldwide standard will help to protect consumer's health and to facilitate fair trade. Increases of international tourism all over the world, the migrations flow, and globalization, the rise of low-fat and low-salt diets, which require more seasoning, as well as increasing the food trade worldwide have increased the demand on the spices and herbs resulting in developing and growth in their international trade continuously.

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 dried sweet marjoram herb including the common, trade and scientific names.
- Style: Listing the different forms of the dried sweet marjoram (whole, crushed, and powdered).
- Composition: Including provisions for basic ingredients and other permitted ingredients. Establishing moisture, ash, and volatile oil content as well as other values of the dried sweet marjoram.
- Quality criteria: Including provisions for colour, odour, flavour, etc.
- Provisions for the labeling and marking of the product in accordance with the Codex standard for the labeling of pre-packaged foods.
- Provisions for hygiene, contaminants, and pesticides residues 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

Consumer protection from the point of view of health, food safety, ensuring fair practices in food trade and considering the identified needs of developing countries. The proposed new standard will meet this criterion by:

- Promotion of consumer protection and the prevention of fraudulent practices.

- Providing greater assurance of the product to meet consumer needs and the minimum requirements for food safety.
- Arriving at levels of standardization based on the properties of different to meet industrial and consumer needs with exactness and credibility. In addition, the elaboration of the standard would be to the benefit of many countries in general and more particularly for producers, exporters, and importers of sweet marjoram.

Criteria applicable to commodities

Overview of Global Sweet marjoram Market top exporting and importing countries 2021, The top 10 exporting countries of Sweet marjoram 2021 were China, Spain, Belgium, Mexico, Poland, Netherland, Ecuador, France, Egypt, and Türkiye respectively, Table (1). And the top 10 importing countries of Sweet marjoram 2021 were United States, Japan, France, Germany, South Korea, United Kingdom, Belgium, Italy, Netherlands, and Canada respectively (table 2), each based on HS code 071080

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

Table 1 - Top 10 exporting countries of Sweet marjoram with a summary of price and seasonality data for each market. 2021

Country	Share in Export Value 2021	Export Value 2021 USD	1-Year Growth in Export Value 2020-2021	3-Year Growth in Export Value 2018-2021
China	22.53%	\$865.73M	+3.56%	+6.36%
Spain	13.10%	\$503.23M	+9.09%	+6.33%
Belgium	12.08%	\$463.95M	-13.12%	-19.48%
Mexico	10.02%	\$384.78M	-2.18%	+13.56%
Poland	5.54%	\$212.93M	+2.54%	-8.87%
Netherland	5.39%	\$206.93M	+19.30%	+25.20%
Ecuador	4.16%	\$159.92M	+0.82%	+33.08%
France	2.83%	\$108.63M	-6.05%	-16.07%
Egypt	2.69%	\$103.35M	+2.76%	+29.73%
Türkiye	2.23%	\$85.58M	+44.97%	+19.22%

<https://www.tridge.com/trades>

Table 2 - Top 10 Importing countries of sweet marjoram with a summary of price and seasonality data for each market (2021).

Country	Share in Import Value 2021	Import Value (in USD) 2021,	1-Year Growth in Import Value 2020-2021	3-Year Growth in Import Value 2018-2021	5-Year Growth in Import Value 2016-2021
United States	20.40%	\$795M	-1.62%	+10.64%	+22.67%
Japan	14.28%	\$556.49M	+10.08%	+14.45%	+35.79%
France	9.01%	\$350.99M	+1.04%	-3.87%	+11.50%
Germany	8.83%	\$344.06M	-1.98%	-2.67%	+4.49%
South Korea	6.33%	\$246.78M	+0.65%	+4.93%	+19.66%
United Kingdom	5.68%	\$221.54M	-1.03%	-10.24%	-0.27%
Belgium	5.41%	\$210.79M	-12.37%	-18.13%	-16.37%
Italy	4.50%	\$175.24M	-1.68%	-5.53%	+15.10%
Netherlands	2.91%	\$113.61M	+7.83%	+5.51%	+11.71%
Canada	2.55%	\$99.58M	+0.07%	+19.71%	+53.19%

<https://www.tridge.com/trades>

Table 3 - List of importing markets for a product exported by Egypt.

Sweet marjoram (Bardacoch), fresh or dried, whether or not cut, crushed or powdered

Unit: US Dollar thousand

Importers	Exported value 2016	Exported value 2017	Exported value 2018	Exported value 2019	Exported value 2020
World	6678	5861	5462	4526	4642
Germany	1347	1230	1172	1212	1585
Poland	1402	1136	1400	1052	786
Austria	405	98	262	307	446
USA	1715	1338	723	295	352
Slovenia	91	13	96	275	210
Belgium	158	109	191	117	170
Latvia	75	32	57	68	150
Algeria	33	63	42	13	119
United Kingdom	61	57	81	54	83
Türkiye	73	228	182	137	74

<https://www.trademap.org/Index.aspx>

Table 4 - List of importing markets for a product exported by Egypt

Sweet marjoram (Bardacoch) fresh or dried, whether or not cut, crushed or powdered

Importers	Exported quantity,	Exported quantity,	Exported quantity,	Exported quantity,	Exported quantity,
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	Kilograms 2016	Kilograms 2017	Kilograms 2018	Kilograms 2019	Kilograms 2020
World	1416	1365	1332	1250	1237
Poland	341	318	346	299	325
Germany	279	280	2600	311	302
Austria	91	29	54	82	99
USA	258	197	140	58	83
Latvia	34	16	31	27	54
Slovenia	2	6	23	68	52
Belgium	32	24	42	26	34
Algeria	11	19	17	6	29
United Kingdom	19	19	20	42	14
Türkiye	10	55	55	32	16

<https://www.trademap.org/Index.aspx>

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

Imports and exports of sweet marjoram take place for many applications. However, it would be preferred that the trade in sweet marjoram is carried out under an international criterion based on Codex Standard. Therefore, the new work would provide internationally recognized specific standard to enhance international trade and to accommodate the importer's requirements. The ISO has developed a standard for sweet marjoram and other associations as the European Spice Association (ESA) and the American Spice Trade Association (ASTA) have dealt with some sweet marjoram specification. 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 the board internationally. This warrants the establishment of a Codex standard as per the Procedural Manual.

(c) International or regional market potential

Dried sweet marjoram herbs and leaves are the most important utilization form of sweet marjoram after sweet marjoram oil due to its popularity, sweet marjoram is intensively cultivated and grown in temperate zones in North Africa, Southern Europe and Asia.

Egypt is one of the most suppliers for the sweet marjoram. Egypt exports the commodity to many countries (e.g. Germany, USA, Poland, Brazil, Austria, Russia)¹

(d) Amenability of commodity to standardization

The standard will include the characteristics of dried sweet marjoram, composition, quality and packaging criteria.

The characteristics of sweet marjoram cultivated to retail sale e.g composition, quality characteristics, processing, packaging, etc., all lead to adequate parameters for the standardization of the product. Considering of technical information available and a certain degree of harmonization that has already been achieved at national level and international levels on certain aspects relevant to consumer's protection and trade facilitation as mentioned in point b), it is therefore, timely to develop an international harmonized standard for sweet marjoram.

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

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

¹ <http://www.nfsa.gov.eg>, National Food Safety Authority (NFSA)

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

The proposed standard will cover the dried sweet marjoram in its different styles (whole, crushed, and powdered).

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

- i. ISO Standard for Dried sweet marjoram (*Origanum majorana* L.) - Specification (ISO 10620:1995),
- ii. Guidance from the American Spice Trade Association 2017 (Clean Safe Spices),
- iii. Quality Minima Document of ESA (Rev. 5 2018).

5. Relevance to Codex strategic objectives

The proposal is consistent with the Codex Strategic Plan 2020-2025, adopted by the 42nd Session of the Codex Alimentarius Commission, in particular strategic objectives 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 3.2. and aims at setting up internationally accepted minimum quality requirements of dried sweet marjoram for human consumption.

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

This proposal is a new Codex Standard and is not related to or based on any pre-existing Codex document. This standard will include references to relevant pre-existing Codex texts developed by general subject committees, as follows:

- *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CXG 21 – 2013).
- *General Principles of Food Hygiene* (CXC 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* (CXS 193-1995) last am
- *Code of Hygienic Practice for Spices and Dried Aromatic Herbs* (CAC/RCP 42-1995) Revised 2014
- *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015)
- *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78-2017)
- *General Standard for the Labeling of Pre-packaged Foods* (CXS 1-1985)
- *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021)
- *Recommended Methods of Analysis and Sampling* (CXS 234-1999)
- *General Standard for Food Additives* (CXS 192-1995)

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 to in the process of preparing the standard.

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

Technical input from the International Standards Organization (ISO), American Spice Trade Association (ASTA), and European Spice Association (ESA) while through developing this standard may be sought when developing this standard.

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.

PROJECT DOCUMENT**PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR DRIED SEEDS- CORIANDER****(For approval)****Introduction**

Coriander, (*Coriandrum sativum* L.), also called cilantro or Chinese parsley, feathery annual plant of the parsley family (*Apiaceae*), parts of which are used as both an herb and a spice. Native to the Mediterranean and Middle East regions, the plant is widely cultivated in many places worldwide for its culinary uses.

The dry fruits are referred to as coriander seeds in commerce. The seeds have a lemony citrus flavour when crushed due to terpenes linalool and pinene. It is described as warm, nutty, spicy, and orange - flavoured.

Coriander is commonly found both as whole dried seeds and in ground form. Coriander seed is a spice in garam masala, and Indian curries. Outside of Asia, coriander seed is used widely for pickling vegetables. Coriander seeds are used in brewing certain styles of beer and are one of the key botanicals used to flavour gin. Although seeds generally have lower vitamin content, they do provide significant amounts of dietary fiber, calcium, selenium, iron, magnesium, and manganese.

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

1. The purpose and scope of the standard

The scope of the work is to establish a worldwide standard for dry and/or dehydrated whole, crushed or ground coriander (*Coriandrum sativum* L.) of the family *Apiaceae* to be offered for industrial food production and for direct consumption, including catering purposes or repacking, as required. The standard will cover all varieties of fruits of *Coriandrum sativum* L. with commercial interest.

2. Relevance and timeliness

Coriander is produced and traded worldwide (Tables 1 to 6) and the major producing/trading countries are: India, Russian Federation, Italy, Bulgaria, Morocco, Spain, Canada, Ukraine, etc. India ranks number 1 in and contributes around 64.5% of world coriander production. The global production as on 2020 is about 2.22 MT.

3. Main aspects to be covered

The main aspects to be covered in standard are the minimum quality required to ensure consumer health and to promote a fair practice in international trade. Hence the standard will cover

- (i). Product Definition - Defining the product as "dry and/or dehydrated, coriander seeds and including reference to the genus and the species and/or varietal types if necessary.
- (ii). Styles - Listing/describing the different forms of presentation of coriander seeds.
- (iii). Classes/ Quality Criteria -Establish the minimum requirements of coriander seeds which shall be complied with, independently from the quality parameters and other requirements regardless of class.
- (iv). Essential Composition and Quality Factors -Provisions for the labelling and marking of the product in accordance with the General Standard for the Labelling of Pre-packaged Foods.
- (v). Provisions on contaminants that refer to the Codex General Standard for Contaminants and Toxins in Food and Feed, pesticides residues and General Standard for Food Additives with reference to pre-existing Codex documents.
- (vi). Hygiene provisions that refer to the Recommended International Code of Practice –General Principles of Food Hygiene.
- (vii). References 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 food trade.

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

Table 1: Top 10 producers of Coriander from 2006 to 2020.

	Country	Production Volume (Tons)															
		Production %	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1	Global		587.10K	698.45K	714.83K	728.29K	827.34K	953.54K	923.84K	907.58K	1.00M	1.08M	1.15M	2.14M	2.24M	2.17M	2.22M
2	India	64.35%	268.78K	396.52K	397.29K	392.38K	419.60K	537.28K	537.33K	546.17K	584.00K	546.00K	632.00K	1.53M	1.50M	1.45M	1.43M
3	Turkey	14.16%	8.48K	8.01K	7.23K	9.47K	13.99K	14.88K	12.89K	12.04K	27.31K	27.84K	30.58K	32.74K	284.88K	306.68K	315.00K
4	Mexico	5.97%	51.76K	49.69K	42.33K	39.67K	46.40K	52.59K	54.08K	65.06K	53.55K	68.94K	80.26K	132.57K	127.24K	100.56K	132.68K
5	Syria	3.19%	39.90K	26.00K	27.70K	30.83K	41.10K	47.59K	51.50K	47.67K	27.67K	27.70K	27.70K	116.44K	76.11K	45.36K	70.99K
6	Iran	2.73%	35.75K	41.76K	34.87K	52.73K	66.10K	62.29K	52.87K	40.10K	66.06K	63.38K	56.51K	61.98K	60.62K	59.71K	60.77K
7	China	2.27%	36.00K	38.00K	40.00K	42.00K	44.00K	45.60K	47.00K	47.20K	49.28K	52.50K	49.66K	50.48K	50.88K	50.34K	50.57K
8	Russia	1.66%	4.19K	2.81K	7.59K	11.20K	7.71K	13.04K	6.12K	5.69K	29.25K	99.87K	89.26K	48.49K	10.15K	37.58K	36.93K
9	Egypt	1.30%	22.00K	22.00K	22.00K	23.20K	24.41K	25.56K	28.00K	27.83K	27.59K	28.19K	28.75K	29.19K	28.71K	28.88K	28.92K
10	Morocco	1.24%	23.00K	23.00K	23.00K	23.75K	24.73K	25.50K	29.50K	26.86K	26.52K	27.10K	27.44K	27.94K	27.49K	27.63K	27.69K

K = Thousand, M = Million

Source: Tridge – Global Trade Platform

Table 2: Pattern of Export International Trade

Year	Export quantity (in Tons)	Value (US Dollar thousand)
2016	200,512	178,922
2017	167,911	133,530
2018	162,414	136,957
2019	167,978	165,055
2020	191,910	199,117
2021	197,956	211,972
2022	Data not available	161,452

Sources: ITC calculations based on UN COMTRADE and ITC statistics.

Table 3: Pattern of Import International Trade

Year	Import quantity (in Tons)	Value (US Dollar thousand)
2016	194,473	180,892
2017	159,970	137,984
2018	158,406	126,765
2019	149,728	141,350
2020	184,152	176,325
2021	Data not available	198,790
2022	Data not available	168,321

Sources: ITC calculations based on UN COMTRADE statistics

Table 4: Exported value (US Dollar thousand) of Coriander seeds, neither crushed nor ground

Exporters	Exported value 2018	Exported value 2019	Exported value 2020	Exported value 2021	Exported value 2022
World	136957	165055	199117	211972	161452
India	34472	40459	45018	47112	37746
Italy	16396	19465	24252	27830	27248
Russian Federation	15906	16959	20131	33157	25087
Bulgaria	9628	16147	17445	19304	16040
Morocco	7303	9466	10837	15211	14241
Spain	4414	4480	5492	4240	4085
Canada	3253	4120	3949	4345	3770
Ukraine	3737	3606	6147	5605	3660
Syrian Arab Republic	8672	15343	19639	6634	3414
Romania	1186	721	1636	2451	2974
Argentina	4719	3705	3925	4335	2864
USA	1602	1942	2027	2691	2335
Türkiye	67	585	1679	1159	2301
Poland	765	1539	2232	2252	2054
Netherlands	1855	1240	1549	1723	1839

Sources: ITC calculations based on UN COMTRADE and ITC statistics.

Table 5: Imported value (US Dollar thousand) of Coriander seeds, neither crushed nor ground

Importers	Imported value 2018	Imported value 2019	Imported value 2020	Imported value 2021	Imported value 2022
World	126765	141350	176325	198790	168321
Malaysia	18415	18513	16437	16903	24924
Indonesia	9187	13035	18603	20777	20175
India	10633	6145	12430	12888	15657
Sri Lanka	-	11840	17527	20011	10406
Japan	5300	3968	4596	5041	9469
USA	5023	5839	6514	9010	9154
Germany	3937	3788	5831	5805	7501
United Kingdom	3222	3572	4590	5024	7038
Egypt	9179	12520	9859	8767	5580
Thailand	3428	3554	3698	4443	5277
China	13	248	1245	2747	4981
Türkiye	252	1401	2784	2304	4302
Netherlands	2282	2359	3628	4786	3626
Poland	1981	1897	3865	5928	3119

Sources: ITC calculations based on UN COMTRADE statistics.

Table 6: Export growth of coriander seeds, neither crushed nor ground.

Exporters	Value exported in 2022 (USD thousand)	Trade balance in 2022 (USD thousand)	Quantity exported in 2022	Quantity Unit	Unit value (USD/unit)	Annual growth in value between 2018-2022 (%)	Annual growth in quantity between 2018-2022 (%)
World	161473	-6905	Data not available	-	Data not available	11	3
India	37746	22090	Data not available	-	Data not available	10	3
Italy	27248	26097	16873	Tons	1615	15	5
Russian Federation	25104	24798	Data not available	-	Data not available	30	17
Bulgaria	16040	15866	15687	Tons	1023	13	2
Morocco	14241	13191	7413	Tons	1921	20	7
Spain	4085	3641	1644	Tons	2485	-2	-8
Canada	3770	2271	2018	Tons	1868	4	-11
Ukraine	3660	3650	4601	Tons	795	4	-10
Syrian Arab Republic	3415	3181	3285	Tons	1040	-22	-23
Romania	2974	1243	2301	Tons	1292	36	37

Sources: ITC calculations based on UN COMTRADE statistics.

The global trade of coriander as total export in 2021 was 197956 tons and import in 2020 was 184152 tons respectively as the major exporters were India, Italy, Russian Federation, Bulgaria, and Morocco etc; while the major importers were Malaysia, Indonesia, Egypt, Japan and United States of America (USA).

(Sources: ITC calculations based on UN COMTRADE statistics)

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

Import and export of coriander take place between many countries. So, establishing international standard criteria based on codex standard is necessary for International trade and consumer support. 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. This warrants the establishment of a Codex standard as per the Procedural Manual.

(c) International or regional market potential

The world market for imported coriander in 2022 was valued at 168,321 (USD thousands) and the exported ones was 161,452 (USD thousands).

Coriander shows an international growth of 11% in value and 3% in quantity exported between 2018 and 2022 (Sources: ITC calculations based on UN COMTRADE statistics)

(d) Amenability of commodity to standardization

The standard will include the characteristics of dried and /or dehydrated coriander's fruits including all varieties of *Coriandrum sativum*, 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 coriander under Codex. The proposed standard will heighten consumer protection and facilitate coriander trade by establishing an internationally agreed quality standard.

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

The proposed standard will cover the dried and / or dehydrated coriander's fruits/seeds in whole, crushed, and powdered forms.

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

- (i). American Spice Trade Association's (ASTA) Cleanliness Specification for spices, seeds and herbs
- (ii). Quality Minima Document of European Spice Association (ESA)
- (iii). ISO Standard for Coriander (*Coriandrum sativum* L.), whole or ground (powdered) - Specification (ISO 2255)

5. Relevance to Codex strategic objectives

The elaboration of a Codex standard for coriander is according to strategic objectives that aim 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 products and promoting international market.

This proposal is consistent with the Codex Strategic Plan 2020-2025, in particular 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

This proposal is a new Codex standard and is not related to or based on any pre-existing Codex document. This standard will include references to relevant pre - existing Codex texts developed by general subject committees, as follows:

- *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CXG 21-1997)
- *General Principles of Food Hygiene* (CXC 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* (CXS 193-1995)
- *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015)
- *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78-2017)
- *General Standard for the Labelling of Pre-packaged Foods* (CXS 1-1985)
- *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021)
- *Recommended Methods of Analysis and Sampling* (CXS 234-1999)
- *General Standard for Food Additives* (CXS192-1995)

7. Identification of any requirement 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.

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

Technical inputs from the International Standards Organization (ISO), American Spice Trade Association (ASTA), and European Spice Association (ESA) may be sought when developing this standard.

9. Proposed time schedule

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

PROJECT DOCUMENT
PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR LARGE CARDAMOM
(For approval)

Introduction

Large cardamom (*Amomum subulatum* Roxb.) belongs to the botanical family called *Zingiberaceae* and is also known as 'black cardamom.' Large cardamom capsules are spindle-shaped and are light to dark brown to pink in color. The dried and/or dehydrated whole capsule normally vary from 6 mm to 10 mm in width and contain several black seeds inside with a spicy aroma.

While large cardamom is grown mainly in the sub-Himalayan region of Nepal, India, and Bhutan, between 800 and 2,100 meters above sea level, other types of cardamom known as green cardamom or small cardamom (*Elettaria cardamomum* Maton) are mostly grown in Guatemala, India, Sri Lanka, Indonesia, Tanzania etc.

For centuries, large cardamom has been utilized by many communities of South Asia for its smoky flavor in their traditional dishes as a symbol of wealth and now getting its market in countries particularly in the Gulf, North America, Europe and Australia. Compared to the green variety, large cardamom has a very distinct smoky smell and taste, and brownish to pinkish color, which originates from an ancient drying method.

1. Purpose and scope of the standard

The physical shapes and chemical/phyto-chemical constituents of large cardamom (*Amomum subulatum* Roxb.) differs widely from small or green cardamom (*Elettaria cardamomum* Maton) which is having larger share in international trade. Currently, there is no Codex standards for large and small cardamom, however, official processes have started for preparation and adoption of a new Codex standard for small cardamom. In order to avoid confusion and generalization of quality standards for small and large cardamoms for international trade, it is proposed to formulate a separate Codex standard for large cardamom. The scope of this work is to establish Codex standard for large cardamom in whole, seed and ground forms. The objective of this standard is to consider the identity and quality characteristics of large cardamom or any other factors to protect consumers' health and promote fair international trade.

2. Relevance and timeliness

Due to the growing trend of large cardamom production, export and international trade, it is necessary to establish commodity standards covering the quality, hygiene and labelling to have a reference that has been internationally agreed by consensus between main producing and trading countries. The main producers of large cardamom are Bhutan, India and Nepal. Large cardamom continues to be in the top list of export commodities for Bhutan and Nepal.

In the world market, both small and large cardamoms, combined, are referred to as cardamom and trade data are put under the Customs HS Code 09.08.31 used for international trade.

Although it is difficult to get the segregated world trade data for large cardamom, based on the recent official data of main exporting countries (Bhutan, India and Nepal), the main importers are from India, Bangladesh, Pakistan, Afghanistan, Saudi Arabia and other Gulf Cooperation Council (GCC) countries, the United Kingdom (UK), the United States (US), Japan, Canada and Australia.

Recent trends show that in terms of volume and value of exports from the South Asian region, the share of large cardamom is gradually increasing. The export price of large cardamom (in capsules) varies between US\$ 10 to US\$ 13 per kilogram in the season of 2023. Currently, it is considered as the world's fourth most expensive spice, surpassed in price per weight only by saffron, vanilla and green cardamom. Economics of this valuable spice is important from different perspectives such as marketing, employment, household income, globalization, and export.

Quality specifications for large cardamom were developed and adopted at international level and national levels. At the international level, ISO has adopted *ISO 10622:1997*- Large cardamom (*Amomum subulatum* Roxb.) as capsules and seeds — Specification and at the national level, various standards for large cardamom were adopted by countries. For international trade, American Spice Trade Association (ASTA) and European Spice Association (ESA) have also set common standards, making these standards applicable for both types of cardamom.

In view of the above, it is necessary to develop a Codex standard for large cardamom, its seeds and ground forms so as to ensure its quality and safety in the international trade and also protect consumers' health.

3. Main aspects to be covered

The main aspects to be covered in the standard are the minimum quality required to ensure consumer health and to promote fair practices in international trade. Hence, the standard will cover:

- i. Product Definition - Defining the product as dry and/or dehydrated whole capsule or seeds or ground form of large cardamom and including references to the genus and the species and/or varietal types if necessary.
- ii. Styles - Listing/describing the different forms of presentation including sizes of whole, or seeds or ground form of large cardamom.
- iii. Classes/Quality Criteria - Including provisions for moisture content, ash content, volatile oil content, extraneous matter and classification of defectives vis-à-vis lot acceptance based on the defects allowed.
- iv. Quality Tolerances - Provisions for the labelling and marking of the product in accordance with the Codex *General Standard for the Labelling of Pre-packaged Foods*.
- v. Provisions on contaminants that refer to the Codex *General Standard for Contaminants and Toxins in Food and Feed*.
- vi. Hygiene provisions that refer to the *Recommended International Code of Practice – General Principles of Food Hygiene*.
- vii. Provisions for pesticides residues, labelling and packaging with reference to pre-existing Codex documents.
- viii. References to Methods of Analysis and Sampling

4. Assessment against the Criteria for the establishment of work priorities

General criteria

Since large cardamom is a high-priced commodity and is getting recognized in the international trade for its pleasant and savory flavor, developing a Codex standard for large cardamom will supply high quality and safe products to protect consumer's health and will help improve fair trade.

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

Global production data for cardamoms is not available separately. However, the data is available for spice group under FAO Code 0702- Nutmeg, mace, cardamom raw. By the year 2021, global production of this spice group reached 1, 92,990 tons. India appeared to be the largest producer of this group of spices, producing 50,000 tons and with a global production share of 34.0% followed by Indonesia (27.7%), Guatemala (24.23%) and Nepal (5.64%) (Table 1a). Amongst these countries, India and Nepal have consistent production growth. Cardamom accounts for the major production volume.

Table 1a - Top Producing Countries of Whole Cardamom Group – Year 2021

FAO Code 0702 : Spices: Nutmeg, mace, cardamoms, raw						
Rank	Country	Country's Production share (%)	Production Quantity (tons)	1 -Year Growth in Qty (%)	3-Year Growth in Qty (%)	5-Year Growth in Qty (%)
		2021	2021	2020-2021	2018-2021	2016-2021
1	India	34.02	50,000	35.14	16.28	31.58
2	Indonesia	22.7	40,800	0.54	-7.48	22.51
3	Guatemala	24.2	35,600	-0.4	0.61	0.35
4	Nepal	5.64	8,290	-13.16	21.02	28.27
5	Sri Lanka	3.06	4,500	9.18	24.88	572.36
6	Laos	2.1	3,090	-0.53	0.34	2.47
7	Bhutan	1.09	1,610	-26.01	4.35	-41.19
8	Tanzania	0.5	730	-0.79	-2.66	-5.54

9	Grenada	0.48	700	7.47	26.28	34.54
10	Honduras	0.4	580	7.47	13.14	14.73

Source: Whole Cardamom production and top producing countries (tridge.com)

Large cardamom is exclusively grown in Bhutan, India and Nepal. By the year 2022, total production of large cardamom by these countries fluctuated between 19,000 to 20,000 tons per annum in the last four years. This is almost 10% of the total global production of cardamom. More than 90% of the production is from India (exclusively from states of Sikkim, West Bengal, Arunachal Pradesh and Nagaland) and Nepal (Table 1b). Cardamom grown in Bhutan and Nepal are exclusively large cardamom and Nepal had the highest yield of 550kg /ha.

Table 1b - World Large Cardamom Production (2017-2022)

Year	Large Cardamom Production (Tons)			
	Nepal	India	Bhutan	Total
2017-18	6849	7844	2245	16938
2018-19	7954	9976	1542	19472
2019-20	9545	10182	1413	21140
2020-21	8289	10034	2175	20502
2021-22	8714	8821	1609	19144

Sources:

1. *Spices Statistics at a Glance 2021- Directorate of Arecanut and Spices Development, Ministry of Agriculture and farmers welfare, GOI, 2021*
2. *Statistical Yearbook of Bhutan published in 2018, 2019, 2020, 2021 and 2022 by National Statistical Bureau of Bhutan, Oct 2023.*
3. *Statistical information on Nepalese agriculture: Annual Publications for fiscal years 2021/22, 2020/21; 2019/20, 2018/19 and 2017/18 by Ministry of Agriculture and Livestock Development Planning and Development Cooperation Coordination Division, Govt. of Nepal*

The world trade data in the internationally published sources are readily accessible only for the product categories under the six-digit HS code. Large cardamom falls under HS code 090831 together with other types of cardamom (green/small cardamom, java cardamom etc.). Updated picture of import-export trend of all types of cardamom in terms of quantity, value, annual growth trend and share in trade are reflected below in Table 2a and Table 2b.

Table 2a - export trade between countries- cardamoms (large, small and others) neither crushed nor ground.

Exporters	Value exported in 2022 (USD thousand)	Trade balance in 2022 (USD thousand)	Quantity exported in 2022, Tons	Unit value (USD/unit)	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 (%)
World	831,653	15,153	102,509	8,113	6	12	-20	100
Guatemala	411,598	410,188	52,262	7,876	-3	6	-19	49.5
India	143,596	87,498	10,605	13,540	30	31	-26	17.3
United Arab Emirates	94,102	-15,736	9,255	10,168	13	15	-17	11.3
Indonesia	69,877	69,624	16,810	4,157	52	24	-9	8.4
Nepal	46,609	41,666	6,887	6,768	13	18	-1	5.6
Saudi Arabia	12,855	-145,144	863	14,896	28	25	6	1.5
Netherlands	11,121	708	583	19,075	13	6	-34	1.3
Singapore	8,731	-1,080	971	8,992	-7	0	-59	1
Viet Nam	5,102	3,821	418	12,206	124	134	576	0.6
Honduras	3,786	3,785	1,435	2,638	2	9	4	0.5
United Kingdom	3,019	-7,568	221	13,661	3	5	-60	0.4
Bhutan	2,944	2,866	426	6,911	46	54	-61	0.4
Germany	2,917	-7,560	168	17,363	1	-3	-27	0.4
Türkiye	2,562	-3,974	162	15,815	143	140	90	0.3

Source: ITC calculation based on UNCOMTRADE and ITC Statistics, unit: US Dollar thousand

Table 2b - import trade between countries – cardamoms (large, small and others) neither crushed nor ground.

Importers	Value imported in 2022 (USD thousand)	Trade balance in 2022 (USD thousand)	Quantity imported in 2022, Tons	Unit value (USD/unit)	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 (%)
World	816,500	15,153	88,644	9,211	14	17	-19	100
Saudi Arabia	157,999	-145,144	12,366	12,777	20	20	-26	19.4
United Arab Emirates	109,838	-15,736	11,539	9,519	7	11	-21	13.5
China	85,638	-85,613	18,217	4,701	1,176	186	-2	10.5
India	56,098	87,498	7,732	7,255	8	12	-7	6.9
Bangladesh	55,031	-55,016	6,670	8,251	4	5	-17	6.7
Egypt	32,091	-32,091	2,235	14,358	21	18	-18	3.9
Jordan	27,744	-26,668	1,932	14,360	4	-2	-8	3.4
Pakistan	23,334	-23,273	2,871	8,127	15	-2	-8	2.9
United States of America	21,821	-21,297	1,482	14,724	17	15	-27	2.7
Kuwait	20,212	-19,849	1,654	12,220	-2	1	-15	2.5
Iraq	17,637	-17,623	1,703	10,356	11	8	6	2.2
Afghanistan	16,796	-16,249	1,630	10,304	47	49	43	2.1
Iran, Islamic Republic of	16,376	-16,373	1,209	13,545	25	22	34	2
Oman	13,491	-13,358	1,124	12,003	5	6	-30	1.7
Qatar	11,874	-11,874	811	14,641	9	6	3	1.5
Yemen	11,847	-11,847	1,027	11,536	24	23	-21	1.5
Syrian Arab Republic	11,841	-11,819	1,578	7,504	-3	0	-24	1.5
United Kingdom	10,587	-7,568	879	12,044	9	9	-46	1.3
Germany	10,477	-7,560	773	13,554	7	3	-49	1.3

Importers	Value imported in 2022 (USD thousand)	Trade balance in 2022 (USD thousand)	Quantity imported in 2022, Tons	Unit value (USD/unit)	Annual growth in value between 2018-2022 (%)	Annual growth in quantity between 2018-2022 (%)	Annual growth in value between 2021-2022 (%)	Share inworld imports (%)
Netherlands	10,413	708	886	11,753	5	3	-44	1.3
Singapore	9,811	-1,080	1,115	8,799	-4	2	-56	1.2
Japan	9,214	-9,214	526	17,517	19	11	-28	1.1
Canada	7,167	-6,522	499	14,363	16	15	-21	0.9
Türkiye	6,536	-3,974	1,559	4,192	56	58	138	0.8
Malaysia	4,951	-4,741	564	8,778	2	6	-18	0.6
Nepal	4,943	41,666	430	11,495	56	51	66	0.6
France	4,319	-3,200	222	19,455	24	13	-19	0.5
Israel	3,647	-3,606	254	14,358	7	5	-2	0.4
Bahrain	3,548	-3,018	252	14,079	11	10	-42	0.4
Australia	3,532	-3,409	271	13,033	9	7	-35	0.4
Sudan	3,032	-3,032	419	7,236	22	33	16	0.4
Somalia	2,825	-2,825	346	8,165	-8	-2	-41	0.3
Finland	2,822	-2,639	157	17,975	5	2	-34	0.3
Sweden	2,527	-2,195	143	17,671	4	0	-47	0.3
Lebanon	2,061	-1,927	193	10,679	-2	-1	-46	0.3
Guatemala	1,410	410,188	1,238	1,139	10	10	-17	0.2
Bhutan	112	2,832	9	12,444	159	73	-6	0

Source: ITC calculation based on UNCOMTRADE and ITC Statistics, unit: US Dollar thousand

Since the trade data for large cardamom is available at the national level with 8-digit HS Code (HS Code 09083110), recent official data on the annual export and import of Bhutan, India and Nepal were utilized for obtaining an indicative international trade pattern of large cardamom.

Table 3a gives a quantity-wise export data of large cardamom between 2018 to 2023, from Bhutan, India and Nepal. The recent trend shows that the total volume of exports have increased and within the past three years fluctuated between 10,000 to 14,000 tons. This accounts for approximately 12% of the global trade of total cardamom.

Since large cardamom represents nearly 10% of production volume and 12% of all types of cardamom export volume and with positive export growth rate (Table 3a), the global demand for large cardamom is expected to increase in future, mainly on account of its increased culinary applications and functional foods in more than 30 countries. It can lead to a gradual increase in export volume and value of large cardamom and therefore, international market potential for large cardamom is substantial. Due to the importance of food safety, hygiene and quality control of cardamom specifications, it's necessary to develop an internationally harmonized standard for large cardamom.

Table 3a - Export Trade of Large Cardamoms, (neither crushed nor ground) from Nepal, India and Bhutan (HS Code 09083110)

Year	Export Quantity (tons)				Annual Growth Rate in Export Quantity (%)
	Nepal	India	Bhutan	Total	
2018-19	3298	724	1698	5721	-
2019-20	3170	1049	2451	6670	16.6
2020-21	8843	1220	1971	12033	89.4
2021-22	5367	1982	3430	10779	-10.4
2022-23	9991	1884	2145	14020	30.1

Sources:

1. *Nepal Foreign Trade Statistics, Annual Publications, Department of Customs, Govt. of Nepal;* website:<https://customs.gov.np/>
2. *Export Import Data Bank, Directorate General of Foreign Trade/Govt. of India* website:<https://tradestat.commerce.gov.in/eibd/default.asp>;
3. *Bhutan Trade Statistics, Annual Publications, Dept. of Revenue and Customs/ Royal Govt. of Bhutan;* website:<https://www.mof.gov.bt/publications/reports/bhutan-trade-statistics>

Country-wise export of large cardamom from India, Nepal and Bhutan is also computed and presented in Table 3b. Being one of the most important export products for Nepal and Bhutan, large cardamom plays a significant role in income and employment generation in these countries. The internal consumption of large cardamom is high for culinary purposes in India. Hence, besides being a major producer of large cardamom, India is also seen as the largest importer of large cardamom. Other importing countries are Bangladesh, United Arab Emirates, Pakistan, Saudi Arabia, Afghanistan, Iran, Kuwait, Qatar, Iraq, the US, UK, Canada, Australia and Japan.

Table 3b – country-wise export of large cardamom from india, nepal and bhutan (three years between 2020 and 2023)

Importers	Export of Large Cardamom (HS Code: 09083110), Quantity (tons)								
	From India			From Nepal			From Bhutan		
	2020-21	2021-22	2022-23	2020-21	2021-22	2022-23	2020-21	2021-22	2022-23
Total	1220	1981.8	1883.5	8842.7	5367.4	9990.8	1970.6	3430	2145
Afghanistan	262.7	488.5	171.5						
Australia	11.09	18.03	16.71						
Bangladesh							1240	1335	1270
Canada	26.56	38.79	29.03						
China	0.14	15							
India				8596.7	5297.4	9946.2	730	2095	875
Iran	157	10.5	33						
Iraq			24.77						
Israel	5.75	8							
Italy	0.88	13.45							
Japan	7.6	31.9	38.4						
Kuwait	13.47	21.7	13						
Malaysia	19.4	10.1	6.1						
Nepal	7.5	11.2							
Netherlands	0.78	17.3	6.5						
Oman, Qatar,	12.3	18.2	27.86						
Pakistan		39	305	246	70	43.75			
Saudi Arabia		39.7	157.2						
Singapore	21.43	3	3						
UAE	479.1	997.3	866.7						
UK	88.22	92.4	56.6						
US	58	58.5	77						
Others	48.08	49.23	51.13			0.84			

Sources:

1. Nepal Foreign Trade Statistics, Annual Publications, Department of Customs, Govt. of Nepal; website: <https://customs.gov.np/>

2. Export Import Data Bank, Directorate General of Foreign Trade/Govt. of India website: <https://tradestat.commerce.gov.in/eibd/default.asp>;

3. Bhutan Trade Statistics, Annual Publications, Dept. of Revenue and Customs/ Royal Govt. of Bhutan; website: <https://www.mof.gov.bt/publications/reports/bhutan-trade-statistics>

B) Diversification of national legislations and apparent resultant or potential impediments to international trade

Trade of large cardamom has an important contribution in the economy of exporting as well as importing countries.

As import, export and re-export of large cardamom is taking place between many countries, establishing international standard criteria based on codex standard is becoming necessary for international trade and consumer support.

Large cardamom is traded according to purity, quality specifications and forms.

1. There are many standards available internationally and nationally for large cardamom.
 - i. *ISO 10622:1997* Large cardamom (*Amomum subulatum* Roxb.) as capsules and seeds — Specification.
 - ii. IS 13446:2009 -Large Cardamom (capsules and seeds) Specifications (Indian Standard)
 - iii. NS 35- Large Cardamom, published in 2040 BS (Nepal Standard)
 - iv. BTS 370:2022, Large Cardamom Specifications (Bhutan Standard)
 - v. European Spice Association Quality Minima Document Rev 5, 2018
 - vi. Cleanliness Specifications for Spices, Seeds and Herbs, Guidance from the American Spice Trade Association (ASTA) 2017 Update

Two of the three producing countries, Nepal and India, also have, under their Food Laws, mandatory standards for large cardamom in the form of whole, seeds and powder:

- i. Food Rules, 2027 (1970): Food Product Standards 04.01, 0402 and 04.03 for large cardamom capsule, seeds, and powder (Nepal)
- ii. Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011: Food Product Standards 2.9.2.4;2,9.2.5 and 2.9.2.6 for Large Cardamom (Badi-Elaichi) capsule, seeds, and powder, respectively (India)

The proposed standard would reduce possible barriers to trade and would provide a comprehensive framework setting out the minimum internationally acceptable requirements for large cardamom.

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

Lack of harmonized and internationally accepted standards for large cardamom will lead to malpractices in the trade. To facilitate fair trade, an internationally accepted Codex standard is essential.

Therefore, due to the importance of food safety, hygiene and quality control of large cardamom specifications, it is necessary to develop an internationally harmonized Codex standard to facilitate international trade of this commodity and help countries to adopt the standard for large cardamom in their national legislations.

C) International or regional market potential

The quantity exported of all types of cardamom in 2022 has been reported as 102,509 tons, having a value of US

\$ 831.6 million (Table 2a). The average annual growth rate in quantity exported for all types of cardamoms between 2018 and 2021 is 8%. In 2022, annual growth rate in terms of quantity exported is recorded as 27% (Table 4a). This pattern of worldwide export trade and growth rates shows that there is an increased market potential for all types of cardamom, regionally and globally.

Table 4a - pattern of export international trade for cardamoms (large, small and others)

Worldwide export data expressed as Growth rate In Quantity Exported (%)			
Year	Export quantity (Tons)	Value, (US Dollar thousand)	Growth rate in Quantity Exported (%)
2018	65,094	665,135	-
2019	62,303	943,001	-4
2020	89,126	1,457,393	+43
2021	80,569	1,050,948	-10
2022	102,509	831,650	+27

Sources: ITC calculations based on UN COMTRADE and ITC statistics

D) Amenability of commodity to standardization

The characteristics of large cardamom cultivated to retail sale e.g. cultivar varieties, composition, quality characteristics, processing, packaging, etc., all lead to adequate parameters for the standardization of the product. Considering of the technical information available and a certain degree of harmonization that has already been achieved at national level and international levels on certain aspects relevant to consumer's protection and trade facilitation as mentioned in point b), it is therefore, timely to develop an international harmonized standard for large cardamom.

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

There is no general commodity standard covering large cardamom under the codex. The development of commodity standard for small cardamom is in progress, now in 6/7 step of codex. The proposed standard for large cardamom will heighten consumer protection and facilitate its trade by establishing an internationally agreed quality standard. Thus, there is a need to pay special attention to consumer protection against adulteration as the large cardamom is one of the high-priced products, with an emerging international market.

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

A single standard for large cardamom will cover all forms of large cardamom traded worldwide. The different forms of large cardamom like whole capsule, seed, ground etc., will be individually examined under this standard.

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

the existing international standard which may be considered while developing a codex standard for large cardamom is *iso 10622:199 large cardamom (amomum subulatum roxb.)* As capsules and seeds - specification.

5. Relevance to the Codex strategic objectives

The elaboration of a Codex standard for large cardamom is according to strategic objectives of the Codex to identify and prioritize needs and emerging issues of its members; timely development of relevant Codex standards; raise the awareness of codex standards; proactively promoting the use of codex standards by codex members and increase the use of Codex standards for food trade. This standard is important to guarantee quality, as well as providing new opportunities to produce these healthy and beneficial products and promote the international market.

Therefore, this proposal is consistent with the Strategic Plan of the Codex Alimentarius Commission for 2020-2025, adopted by the 42nd Session of the Codex Alimentarius Commission, in particular strategic objectives 1.1, 1.2, 2.1, 2.2, 2.3, 3.1 and 3.2.

The proposed work will promote elaboration of Codex commodity standards based on the rigorous scientific analysis of collected data as set in the Strategic Goal 2: Develop standards based on Science and Codex risk analysis principles.

This Codex standard will facilitate fair trade of large cardamom, to ensure quality, purity parameters and food safety. The purity of large cardamom allows providing proper criteria for the quality control of these products.

Hence, elaborating this standard can help to avoid the risks such as lack of Good Hygienic Production, non-compliance with grading and 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 and 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 texts on this item, except that this standard will refer 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 – 2013).
- *General Principles of Food Hygiene*. Codex Alimentarius Code of Practice, (CXC 1-1969). FAO andWHO. 2023 Codex Alimentarius Commission. Rome. Revised and renamed 2022.
- Data bases related to the maximum limits for pesticides residues issued by Codex Committee onPesticides Residues in Food (CCPR)
- *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995)
- *Code of Hygienic Practice for Spices and Dried Aromatic Herbs* (CAC/RCP 42-1995) Revised 2014
- *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015)
- *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78-2017)
- *General Standard for the Labeling of Pre-packaged Foods* (CXS 1-1985)
- *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021)
- *Recommended Methods of Analysis and Sampling* (CXS 234-1999)
- *General Standard for Food Additives* (CXS 192-1995)

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

The need for expert scientific advice is not foreseen at this stage. Published research documents by internationalbodies will be referred to 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 inputs from external bodies such as international organization for standardization (iso), american spice trade association (asta) and european spice association (esa) may be sought when developing this standard.

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.

PROJECT DOCUMENT
PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR DRIED CINNAMON
(For approval)

Introduction:

Dried cinnamon is the common name for the perennial plant *Cinnamomum* sp. which belongs to the Lauraceae family. Around 250 to 350 species of cinnamon have been identified and are distributed across North America, Central America, South America, Southeast Asia, and Australia. Among these species, four are considered of greater importance and are commonly used for obtaining the spice: *Cinnamomum zeylanicum* Blume (also known as *C. verum*), native to Sri Lanka; *Cinnamomum cassia* Siebold (or *C. aromaticum*), native to China; *Cinnamomum burmannii* (Nees & T. Nees) Blume, native to Indonesia and *Cinnamomum loureirii* Nees, native to Vietnam. Dried cinnamon can be found on the market in two main species: Ceylon cinnamon (referred as “true cinnamon”) and Cassia (referred as “false cinnamon”). Due to its high market value, sweeter and milder flavor, and higher amounts of phenolic and aromatic compounds, “true cinnamon” is more challenging to obtain compared to “false cinnamon” that has a more astringent taste and contains a higher concentration of coumarin in its composition. Coumarin is a natural compound found in plants such as cinnamon. Low exposure to coumarin from natural sources is expected and not anticipated to represent a health risk but some health agencies considered to be important to examine the coumarin levels. Dried cinnamon is one of the most important spices not only for cooking but also in traditional and modern medicines. The spice is harvested from the peels of the inner bark of the cinnamon tree. Cinnamon consists of a variety of resinous compounds, including cinnamaldehyde, cinnamate, cinnamic acid, and numerous essential oils mainly used in the aroma and essence industries due to its fragrance, which can be incorporated into different varieties of foodstuffs, perfumes, and medicinal products. Also due to its beneficial properties, including reducing glucose levels and antimicrobial activity, cinnamon has been increasingly demanded in the development of innovative products.

1. The purpose and scope of the standard

The scope of the work is to establish a standard under the group dried bark for whole, pieces/cut/cracked/broken and ground/powdered of dried cinnamon to be offered for direct human consumption, as an ingredient in food processing or for repackaging if required. The standard will be developed in the Dried Bark SCH group and cover the species of cinnamon genus with commercial interest. The objective is to develop a Codex standard based on measurable characteristics, specifically quality criteria, and any other factors for developing an international document to protect consumer’s health and facilitate the international trade.

2. Relevance and timeliness

Cinnamon is one of the most important spices used daily by people all over the world. Cinnamon is cultivated extensively in China, Indonesia, Vietnam, Sri Lanka and the coastal regions of India. The quantity exported in 2022 reached 1.98 MT. Cinnamon market is expected to have a 7% CGAR in the period of 2023-2028 with the development of innovative products using cinnamon as ingredient due to its benefits properties for health. Developing an international standard will help to protect consumer's health and to facilitate fair trade. Due to the quality and high value, true cinnamon is susceptible to fraud and false cinnamon is often used as a substitute and/or adulterant, both in powdered form and for the essential oil. Providing minimum requirements using a standard can provide the promotion of consumer protection and the prevention of fraudulent practices.

3. Main aspects to be covered

The main aspects to be covered in the proposed draft standard are the chemical (taste/flavor) and physical (safety and quality) characteristics of dried cinnamon. The following will be covered:

- Product definition: Defining the product as dried cinnamon including the common, trade and scientific names for the main commercial species.
- Style: Listing or describing the different forms of presentation of the dried cinnamon (whole, pieces/cut/cracked/broken and ground/powdered).
- Quality criteria: establish the minimum requirements for dried cinnamon for chemical and physical characteristics (Annexes)
- Provisions for the labeling and marking of the product in accordance with the CODEX standard for the labeling of pre-packaged foods.
- Provisions on contaminants that refer to the Codex General Standard for Contaminants and Toxins in Food and Feed, pesticides and General Standard for Food Additives with reference to pre-existing

Codex documents.

- Hygiene provisions that refer to the Recommended International Code of Practice –General Principles of Food Hygiene.
- References to Methods of Analysis and Sampling.

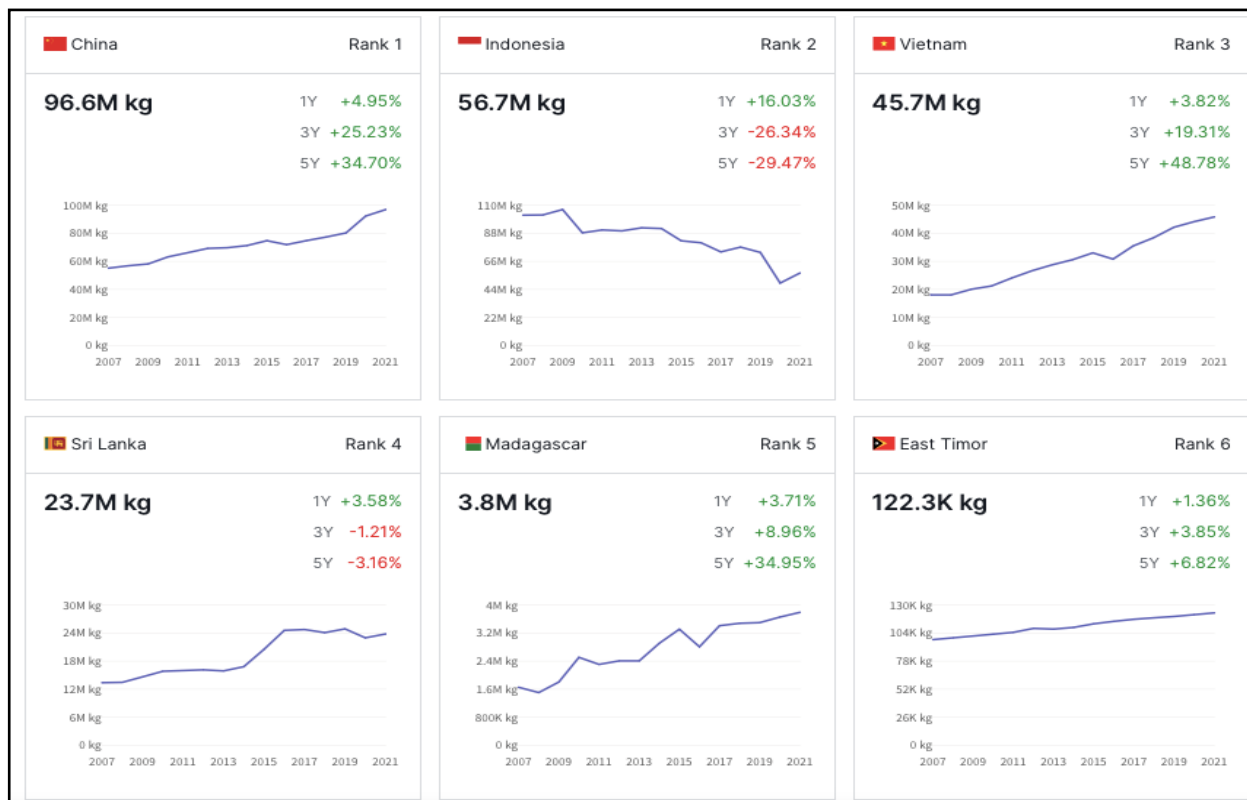
4. Assessment against the Criteria for the establishment of work priorities

General criterion:

Consumer protection from the point of view of health, food safety, ensuring fair practices in food trade.

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

Table 1: Volume of production per country (HS 0906 Cinnamon and cinnamon-tree flowers, raw)



Source: Tridge.com

Table 2- List of top 20 importers for cinnamon

Product: 0906 Cinnamon and cinnamon-tree flowers

Unit : US Dollar thousand						
1 2 3 4 5 6 7 8 9						
HS4	Importers	Imported value in 2018	Imported value in 2019	Imported value in 2020	Imported value in 2021	Imported value in 2022▼
	World	694,906	719,869	855,316	926,672	990,121
	United States of America <i>i</i>	124,480	129,684	154,116	185,087	204,668
	India <i>i</i>	72,328	85,948	108,486	109,256	112,949
	Mexico <i>i</i>	99,995	76,467	72,386	85,923	101,686
	Viet Nam <i>i</i>	17,479	16,124	29,599	57,515	53,234
	Bangladesh	24,237	37,743	33,883	34,124	35,644
	Germany <i>i</i>	20,414	22,169	21,957	27,767	27,580
	Netherlands <i>i</i>	26,351	18,105	24,098	28,006	25,496
	Peru <i>i</i>	22,344	16,100	27,112	17,463	24,639
	Canada <i>i</i>	13,062	13,032	14,568	18,507	21,990
	United Arab Emirates <i>i</i>	9,242	13,543	16,208	14,566	20,233
	Saudi Arabia <i>i</i>	9,815	11,373	16,756	14,180	18,340
	United Kingdom <i>i</i>	14,742	13,645	16,419	16,101	17,326
	Pakistan <i>i</i>	7,511	11,143	10,557	9,776	13,130
	Iran, Islamic Republic of <i>i</i>	7,420	8,918	12,872	12,361	12,897
	Japan <i>i</i>	9,539	10,296	10,059	10,654	12,052
	Colombia <i>i</i>	10,996	8,711	10,534	12,047	10,830
	Spain <i>i</i>	12,055	11,357	12,605	13,017	10,704
	Guatemala <i>i</i>	6,427	12,374	8,617	6,624	10,624
	Brazil <i>i</i>	10,190	8,730	12,475	10,926	10,499
	Poland <i>i</i>	6,146	6,052	6,923	7,431	10,169

<https://www.trademap.org/Index.aspx>

Table 3 - List of top 20 exporters for cinnamon

Product: 0906 Cinnamon and cinnamon-tree flowers

Unit : US Dollar thousand						
1 2 3 4 5 6						
HS4	Exporters	Exported value in 2018	Exported value in 2019	Exported value in 2020	Exported value in 2021	Exported value in 2022▼
	World	728,415	753,026	1,033,134	1,102,201	1,033,719
	China <i>i</i>	135,531	162,082	292,898	275,620	274,380
	Viet Nam <i>i</i>	134,063	172,450	238,092	266,206	259,940
	Sri Lanka <i>i</i>		175,976	216,351	247,368	217,295
	Indonesia <i>i</i>	141,445	133,734	151,295	160,688	131,449
	Netherlands <i>i</i>	21,475	20,743	22,110	29,964	22,671
	United States of America <i>i</i>	12,817	12,281	14,835	17,534	19,940
	United Arab Emirates <i>i</i>	7,822	10,279	14,833	12,243	19,898
	Germany <i>i</i>	11,349	11,152	15,553	15,194	14,614
	India <i>i</i>	6,244	7,084	9,678	11,235	10,839
	France <i>i</i>	8,696	7,383	8,140	7,072	6,180
	Poland <i>i</i>	3,643	3,092	4,141	4,220	5,211
	Austria <i>i</i>	3,484	3,741	4,305	4,629	4,678
	Madagascar <i>i</i>	7,347	4,983	4,334	5,377	4,422
	Spain <i>i</i>	2,790	2,530	3,678	4,849	4,055
	United Kingdom <i>i</i>	2,754	2,841	3,978	4,537	2,989
	Türkiye <i>i</i>	265	733	1,552	2,441	2,961
	Czech Republic <i>i</i>	802	1,024	1,951	2,107	2,654
	Canada <i>i</i>	727	602	956	1,468	2,538
	Estonia <i>i</i>	1,461	1,701	1,864	1,855	2,121
	Nepal <i>i</i>	1,021	989	1,618	2,045	1,950

<https://www.trademap.org/Index.aspx>

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

The cinnamon trade is one of the oldest and most global of all trading networks. The largest producers are China, Indonesia and Vietnam and the main exporters of cinnamon are China, Vietnam, Sri Lanka and Indonesia. The largest cinnamon importing countries are United States, India, Mexico, Vietnam and Bangladesh. With increased globalization and increases in the volumes of cinnamon traded internationally, establishing international criteria based on scientific codex standard is important for fair practices in food trade and consumer health protection, recognizing the extent to which Codex standards play a fundamental role in trade facilitation. The focus and needs of Codex Members are also evolving, for example, as they consider the voluntary United Nations' Sustainable Development Goals (SDGs) and Codex will need to be proactive and flexible and to respond in a timely manner to the opportunities and challenges that result. To overcome the resultant or potential impediments to international trade of cinnamon, it is essential to incorporate existing different standards in a single improved comprehensive standard acceptable across the board internationally.

(c) International or regional market potential

The quantity of cinnamon exported worldwide was about 198.000 Tons in 2022, with an annual growth in quantity between 2018 and 2022 of 8% and an annual growth in value of 13%, reaching more than 1 billion USD in 2022 (Source: TradeMap).

(d) Amenability of commodity to standardization

The group standard for dried bark addresses the aspects related to the characteristics of dried cinnamon composition, quality characteristics, processing, packaging, etc., aiming to establish adequate parameters for the standardization of the product. Considering the technical information available, the experience with national regulations and a certain degree of harmonization that has already been achieved at international levels on certain aspects relevant to consumer's protection and trade facilitation, it is therefore, timely to develop an international harmonized standard for dried cinnamon establishing the physical and chemical characteristics the product.

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

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

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

The proposed standard will cover the dried cinnamon in its different styles (whole, pieces/cut/cracked/broken and ground/powdered) in the Dried Bark CSH group.

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

The quality and safety characteristics are based on existing industry trade practices and regulatory requirements from existing national and international standards and regulations, including the following:

- American Spice Trade Association's (ASTA) Cleanliness Specification for spices, seeds and herbs
- Quality Minima Document of European Spice Association (ESA)
- ISO Standard for *Cinnamomum zeylanicum* Blume, whole or ground (powdered) - Specification (ISO 6539:2014)
- ISO Standard for *Cinnamomum aromaticum* (Nees) syn. *Cinnamomum cassia* (Nees) ex Blume, *Cinnamomum burmanii* (C.G.Nees) Blume and *Cinnamomum loureirii* Nees - Specification (ISO 6538:1997)

5. Relevance to Codex strategic objectives

The elaboration of a Codex standard for dried cinnamon is according to the strategic objectives including the promotion of use of globally representative data to develop the standard, raise awareness and increased use of Codex standards in the development of national regulations and by the food trade. This proposal is consistent with the Codex Strategic Plan 2020-2025, in particular strategic Goal 2 - Objective 2.2, and Goal 3 - Objectives 3.1 and 3.2. The proposal aims at setting up international accepted minimum quality requirements of dried cinnamon for human consumption based on globally representative data.

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

This proposal is a new Codex Standard and is not related to or based on any pre-existing Codex document. This standard will include references to relevant pre-existing Codex texts developed by general subject committees,

as follows:

- *Principles and guidelines for the Establishment and Application of Microbiological Criteria for Foods* (CXG 21-1997)
- *General Principles of Food Hygiene* (CXC 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* (CXS 193-1995)
- *Code of hygienic practice for spices and dried aromatic herbs* (CAC/RCP 42-1995)
- *Code of Hygienic Practice for Low-Moisture Foods* (CXC 75-2015)
- *Code of Practice for the Prevention and Reduction of Mycotoxins in Spices* (CXC 78-2017)
- *General Standard for the Labelling of Pre-packaged Foods* (CXS 1-1985)
- *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021)
- *Recommended Methods of Analysis and Sampling* (CXS 234-1999)

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

No need for expert scientific advice is foreseen at this stage, due to the high level of participation by public and private sector spice and culinary experts in national and observer organizations represented at CCSCH. Published research documents by international bodies will be referred to in the process of preparing the standard.

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

Technical input from the International Standards Organization (ISO), American Spice Trade Association (ASTA), and European Spice Association (ESA) while through developing this standard may be sought when developing this standard.

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.