



JOINT FAO/WHO FOOD STANDARDS PROGRAMME
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PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR DRIED SEEDS- CORIANDER

(Proposal submitted by India)

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	<u>Global</u>		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	<u>India</u>	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	<u>Turkiye</u>	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	<u>Mexico</u>	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	<u>Syria</u>	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	<u>Iran</u>	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	<u>China</u>	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	<u>Russia</u>	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	<u>Egypt</u>	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	<u>Morocco</u>	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	200512	178,922
2017	167911	133530
2018	162414	136957
2019	167978	165055
2020	191910	199117
2021	197956	211972
2022	Data not available	161452

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	194473	180892
2017	159970	137984
2018	158406	126765
2019	149728	141350
2020	184152	176325
2021	Data not available	198790
2022	Data not available	168321

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 in 2018	Exported value in 2019	Exported value in 2020	Exported value in 2021	Exported value in 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 in 2018	Imported value in 2019	Imported value in 2020	Imported value in 2021	Imported value in 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	Data not available	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 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 Strategic Plan of the Codex Alimentarius Commission 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 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* (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* (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 CCSCCH sessions or less, depending on the agreement reached by the Committee.