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CODEX ALIMENTARIUS COMMISSION
Forty-fourth Session
8-13 November 2021

REPORT OF THE 5TH SESSION OF THE CODEX COMMITTEE ON SPICES AND CULINARY HERBS

Virtual 20–29 April 2021
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<th>Full Form</th>
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<tr>
<td>AOAC</td>
<td>Association of Official Analytical Chemists</td>
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<td>ASTA</td>
<td>American Spice Trade Association</td>
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<tr>
<td>CAC</td>
<td>Codex Alimentarius Commission</td>
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<td>CCCF</td>
<td>Codex Committee on Contaminants in Foods</td>
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<td>CCEXEC</td>
<td>Executive Committee of the Codex Alimentarius Commission</td>
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<td>CCFA</td>
<td>Codex Committee on Food Additives</td>
</tr>
<tr>
<td>CCFFV</td>
<td>Codex Committee on Fresh Fruits and Vegetables</td>
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<td>CCFH</td>
<td>Codex Committee on Food Hygiene</td>
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<td>CCFL</td>
<td>Codex Committee on Food Labelling</td>
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<td>CCMAS</td>
<td>Codex Committee on Methods of Analysis and Sampling</td>
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<tr>
<td>CCPFV</td>
<td>Codex Committee on Processes Fruits and Vegetables</td>
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<tr>
<td>CCSCH</td>
<td>Codex Committee on Spices and Culinary Herbs</td>
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<tr>
<td>CL</td>
<td>Circular letter</td>
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<tr>
<td>CRD</td>
<td>Conference room document</td>
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<tr>
<td>CXS</td>
<td>Codex Standard</td>
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<td>CXC</td>
<td>Codex code of practice</td>
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<tr>
<td>CXG</td>
<td>Codex guideline</td>
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<td>EU</td>
<td>European Union</td>
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<td>EWG</td>
<td>Electronic working group</td>
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<td>IWG</td>
<td>In-session Working Group</td>
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<td>GMP</td>
<td>Good Manufacturing Practice</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FDA</td>
<td>United States Food and Drug Administration</td>
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<tr>
<td>GSFA</td>
<td>General Standard for Food Additives</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
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<td>PWG</td>
<td>Physical working group</td>
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<td>SCH</td>
<td>Spices and culinary herbs</td>
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<td>WHO</td>
<td>World Health Organization</td>
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INTRODUCTION

1. The Codex Committee on Spices and Culinary Herbs (CCSCH) held its fifth session virtually, on 20, 21, 22, 26, 27 and 29 April 2021, at the kind invitation of the Government of India. Dr M. R. Sudharshan, former Research Director, Spices Board India, Ministry of Commerce and Industry, Government of India, chaired the session, which had 275 registrants representing 65 Member Countries, one Member Organization (European Union) and Observers of 11 international governmental (IGOs) and non-governmental organizations (NGOs) and United Nations agencies. The full list of participants is contained in Appendix I.

OPENING OF THE SESSION

2. Ms. Rita Teaotia IAS, Chairperson, Food Safety and Standards Authority of India, opened the meeting, welcoming participants and noting the importance of establishing harmonized international standards for spices and culinary herbs in order to protect consumer health and promote fair practices in food trade. She expressed India’s commitment towards the work of Codex including providing reliable and scientifically collected occurrence data for the ongoing work on developing maximum levels for aflatoxins and ochratoxin as well as lead in spices; and wished the delegates very fruitful deliberations.

3. Mr. D. Sathiyan IFS, Secretary, Spices Board India, Dr. Roderico H. Ofrin, World Health Organization (WHO) Representative in India, Mr. Konda Chavva, Assistant Representative of the Food and Agriculture Organization of the United Nations (FAO) in India, and Mr. Guilherme da Costa Junior, Chairperson of the Codex Alimentarius Commission (CAC) also addressed the Committee.

Division of Competence

4. CCSCH5 noted the division of competence between the European Union (EU) and its Member States, in accordance with paragraph 5, Rule II, of the Rules of Procedure of CAC.

ADOPTION OF THE AGENDA (Agenda item 1)

5. CCSCH5 adopted the Provisional Agenda.

6. The Chairperson proposed that the Information document from the International Organization for Standardization (ISO) could be presented under agenda item 10, Other business, time permitting, which CCSCH5 supported.

7. CCSCH5 agreed to establish three In-session Working Groups (IWGs), working in English, to consider the following issues and prepare recommendations for the plenary:

   • Proposed draft standard for dried seeds – Nutmeg (Agenda item 8.1), chaired by Indonesia
   • New work proposals and the template for group standards (Agenda item 9.1 and 9.2), co-chaired by United States of America and India
   • Proposed draft Standard for dried or dehydrated chilli pepper and paprika (Agenda item 7.1), chaired by India

8. On the request by India not to re-assess the two new work proposal on cardamom and turmeric (Agenda 9.1) outstanding from CCSCH4, the Chairperson recalled that though these had been evaluated at the previous session, CCSCH4 had requested for their re-submission at CCSCH5 with updated information, in case there were new published trade and scientific data.

MATTERS REFERRED BY THE CODEX ALIMENTARIUS COMMISSION AND ITS SUBSIDIARY BODIES (Agenda item 2)

9. CCSCH5 took note of the matters referred for information and agreed that matters for action would be considered under the relevant agenda items.

Tolerances for defects in the draft CCSCH standards

10. A Member highlighted the concerns expressed at CAC42 regarding the tolerances for some parameters such as mammalian excreta, visible mould formation and insect fragments included in the draft standards for spices and culinary herbs. The proposed values set for these provisions could be too high. It was proposed that

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1 CRD29 (Opening remarks)
2 CRD01 (Annotated Agenda – Division of competence between the European Union and its Member States)
3 CX/SCH 21/5/1Rev
4 CX/SCH/5 INF/02
5 CX/SCH 21/5/2; CRD20 (comments of Canada); CRD24 (comments of India); CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Peru, Venezuela, Guyana and Cuba); CRD28 (comments of Ecuador)
CCSCH consider requesting scientific advice from FAO and WHO to assess and verify these values.

11. The Chairperson noted that some concerns had been raised on the provision for tolerances for defects like presence of extraneous material, foreign matter, filth etc. in the standards for spices and culinary herbs (SCH).

12. The Chairperson highlighted that spices and culinary herbs are:
   i. agricultural commodities and it is the general understanding that the agricultural products cannot be produced without any defects even after following Good Agricultural Practices. These defects get drastically reduced during processing following Good Manufacturing Practices including sterilization processes.
   ii. a special group of commodities, though considered food, that are not consumed directly for their calorific content like, meat, fish & fisheries products, milk and milk products, fresh and/or processed fruits and vegetables etc. but are used in foods in small quantities to enhance colour, odour or flavour of the foods and hence they are different.

13. The Chairperson stressed that the standards for spices and culinary herbs are:
   i. elaborated in tandem with the purpose of Codex. The standards published so far and the ones in the process of development, follow the format for Codex Commodity Standards in the Codex Procedural Manual (PM). Food safety aspects are taken care of as these standards comply with the relevant provisions of the Codex General Subject Committees under the Food Additives, Contaminants, Hygiene and Food Labeling sections. The Physical and Chemical Characteristics section of the standards with tolerance limits for defects is to facilitate trade.
   ii. in line with the core values and purpose of Codex, protecting the health of the consumers and ensuring fair practices in the food trade

14. CCSCH5 agreed to consider this issue under the relevant agenda items.

Food additive provisions for the proposed draft standard for dried roots, rhizomes and bulbs

15. The Codex Secretariat brought the Committee's attention to an inadvertent omission in paragraph 14 of document CX/SCH 21/05/2 and requested to insert the following underlined text in the first line:

“CCFA51 agreed not to endorse the food additive provisions for the proposed draft standard for ...”.

Section 8.3 and 8.3.1 “Country of Origin/Country of Harvest”

16. CCSCH5 noted the following views expressed by delegations on the two terms:
   a) The General Standard for the Labelling of Prepackaged Food (CXS 1-1985) requires declaration of country of origin as mandatory, if its omission would mislead or deceive the consumer. As such, there should be distinct and clear labelling provisions for “Country of Origin” and “Country of Harvest”.
   b) To ensure consistency in the labelling section among standards developed by CCSCH, the provisions “Country of Origin” and “Country of Harvest” should be separate and both provisions be optional.
   c) Taking into account the practical aspects of inspection of agricultural commodities, “Country of Harvest” and “Country of Origin” as well as the “Year of Harvest” are difficult to verify during inspection. However, a clear distinction between these requirements is required, and the requirements should be separate, with “Country of Origin” as a mandatory provision and “Country of Harvest” and “Year of harvest” as optional provisions.
   d) For some products, the origin of their production is very important and relevant to consumers and therefore “Country of Harvest” should be included as an optional labelling requirement. Declaration of the region of production was considered equally important in providing significant information to the consumer, especially for regional products, and should therefore also be an optional labelling requirement where appropriate.

17. Canada referring to CRD20 expressed support for CCSCH5 to:
   - ensure clear labelling provisions to separate country of origin from country of harvest;
   - be consistent with the three CCSCH standards adopted in 2017 where country of origin is optional and
   - allow these labelling provisions to each be optional for all standards under consideration, unless its omission would mislead or deceive the consumer.

18. The Chairperson noted that there was consensus to separate the two provisions, and to keep the provision “Country of Origin” as mandatory and the provision “Country of Harvest” as optional in the SCH standards.
Conclusion

19. CCSCH5 agreed to:
   I. keep both provisions in the standards.
   II. split “Country of Origin/Country of Harvest” into two independent and clear provisions, i.e. a provision on “Country of Origin” being mandatory and a provision on “Country of Harvest” being optional; and that these provisions would be reconsidered in individual standards, should the need arise.
   III. inform the Codex Committee on Food Labelling (CCFL) on the above decision.

Section 8.5 “Inspection mark (optional)”

20. CCSCH5 noted the suggestions to delete this section as no information was available. A Member explained that inspection marks were widely used in trade and proposed to describe this terminology under the agenda item for layout and make this provision optional.

21. CCSCH5 agreed that the provision be expunged from SCH standards. However, it could be considered under individual draft standards should there be a need.

DRAFT STANDARD FOR DRIED OREGANO (Agenda item 3)\(^6\)

22. Turkey, as Chair of the Electronic Working Group (EWG) introduced the Agenda item recalling that CCSCH4 agreed to establish an EWG to review outstanding issues noting that following the rescheduling of CCSCH5, the EWG had continued its work with an additional mandate to consider comments submitted at Step 6, as well as the matters referred to CCSCH by Codex Committee on Food Additives (CCFA), CCFL, and Codex Committee on Methods of Analysis and Sampling (CCMAS). The EWG also held an informal in-session virtual meeting to resolve outstanding matters and reached consensus on all provisions.

23. The CCSCH Chairperson reminded the Committee that most of the issues were already agreed upon at the last session of CCSCH, except Section 2.1 - Product definition, the Tables for physical and chemical characteristics, respectively, and Section 8 - Labelling. Other sections would be considered for the purposes of ensuring consistency of the text and editorial corrections.

Section 2.1 Product definition

24. CCSCH5 held broad discussions on the Product definition for oregano and noted the following views expressed by delegations:
   a) Since in Table 1 (Dried culinary herbs covered by the standard), the general names and trade names were similar, the table should be simplified to indicate only the general name and the scientific name, and the trade name should be deleted.
   b) The use of trade names for oregano derived from geographical regions may confuse both the consumers and the market in terms of the country of origin and/or the country of harvest. In the available literature on scientific research, there was no citation of trade names and thus they were not considered official names.
   c) As nomenclature in a Codex standard was very important for any plant-derived product; grouping of the plants falling under different botanical families should be carefully examined. Considering that Oregano included two distinct species i.e. Oregano - *Origanum* and Mexican oregano – *Lippia*, these should be clearly differentiated under the common names by using the name “Oregano-Origanum” instead of *Origanum* spp. L. (except *Origanum majorana* L.) and “Oregano-Lippia” instead of *Lippia* L. spp.
   d) Inclusion of the different varieties/species of oregano in the standard based on the chemotype of essential oils contained in them was not acceptable. Sword oregano (*Satureja* spp. L.) should not be included in the standard for dried oregano since it was not recognised as oregano.

25. The EWG Chair explained how the rationalization and simplification of Table 1 was arrived at, underlining the previous decision of CCSCCH that the scope of the standard should cover all products traded as oregano. The criteria used to rationalize the list of plants included: i) use of genus names instead of variety names (*Origanum* spp. L., except *Origanum majorana* L. and *Lippia* spp. L.), and ii) identification of other plants traded as oregano (*Poliomintha longiflora* and *Satureja* spp. L.).

\(^6\) CX/SCH 21/05/3; CX/SCH 21/05/3 Add.1; CRD09 (comments of Kenya, Tanzania, Thailand); CRD17 (comments of Thailand); CRD18 (Malaysia); CRD19 (comments of European Union); CRD21 (comments of Morocco); CRD24 (comments of India); CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Peru, Venezuela, Guyana and Cuba); CRD28 (comments of Ecuador); CRD32 (Report of informal meeting)
26. CCSCH5 further noted the direct link between Section 2 Description and Section 8 Labelling, in particular the common name, scientific name and the style of the product. Moreover, it was further observed that the intent of labelling was to ensure that consumers were not misled when buying oregano.

**Conclusion**

27. Based on the above considerations and further informal consultations (see paragraph 28), CCSCH5 decided to delete the trade names, to exclude “Sword oregano” (*Satureja* spp. L), and to delete *Poliomintha longiflora* under the general name “Mexican oregano”.

**Sections 3.2.4 – Physical Characteristics and 3.2.5 – Chemical Characteristics**

28. CCSCH5 discussed Sections 3.2.4 (Table 2. Physical characteristics) and Section 3.2.5 (Table 3 Chemical characteristics) and noted diverging views on tolerances for insect fragments; applicability of parameters to different styles; volatile oil content for different styles, among others; and agreed that these needed to be clarified. CCSCH5 requested the Chair of EWG to continue informal consultations and propose workable solutions. The outcome of the consultations was outlined in CRD32.

**Table 2 Physical Characteristics**

29. CCSCH5 considered the proposals in CRD32 and:

- Decided to delete the parameter for insect fragments, noting that the proposed tolerances for the different styles were too high as compared to tolerances for similar parameters in other SCH standards and these tolerances have to be scientifically justified. CCSCH5 agreed that, in the future, the tolerances for insect fragments could be revisited when scientific data become available.

- Agreed that the following parameters will apply only to the styles of whole oregano:
  i) “Visible mould/insect damage”
  ii) Mammalian excreta
  iii) Other excreta

- Agreed that currently there were no validated Methods of Analysis and Sampling for oregano presented in powdered style; therefore for this style the term “Not Applicable” (N/A) should be used.

- Agreed to insert a footnote to explain the meaning of “N/A”: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently there are no values. N/A does not refer to zero.

**Table 3: Chemical requirements**

30. CCSCH5 agreed to reduce the minimum values for volatile oil in the ground/powdered product from 1.5 to 1.3 in order to create the distinction between Ground/Powdered Oregano and Class/Grade II Oregano noting that ground/powder product was more susceptible to evaporative loss of the oil and could not have similar values with Class/Grade II.

**Section 4: Food additives**

31. The food additives provision was realigned to the standardized text recommended by CCFA. i.e. “Anticaking agents listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in powdered form of the foods conforming to this standard”.

**Section 8 Labelling**

32. CCSCH5 recalled the discussion on the provision of labelling under Agenda Item 2 on the labelling of Country of Origin and Country of Harvest, and briefly exchanged views on how to reflect the aspects in Section 2 - Description under the labelling provisions. Delegations expressed the following views.

- The scientific name and style of the product should be mandatory only when the product was offered for direct consumption, and not when it was used as an ingredient in a compound food. However, this approach may have several challenges: Spices and culinary herbs were usually sold in very small packages with small labels which cannot accommodate long scientific names; Some countries/regions use multilingual labels, which reduced the available space for consumer information; and in some instances consumers information may not be accessible (like in potato chips with oregano). On the other hand, if oregano was sold directly as a dried herb to consumers, then consumers may want to be informed about the species and quality factors on the label.

- The common name and scientific name should be both mandatory with the latter being the most important aspect of this labelling provision.
- In line with the General Standard for the Labelling of Prepackaged Foods (CXS1-1985), the scientific name should be optional and its inclusion in the labelling did not clarify anything to consumers because it was overly complicated.

- Country of origin should always be mentioned on the label, however in this case, the country of harvest was more relevant than the country of origin and thus should be displayed as well.

33. The Chairperson of CCSCH, taking into account the views expressed as well as the challenges highlighted, proposed that the general name should be mandatory while the use of scientific name remained optional.

34. CCSCH5 agreed with the proposal of the Chairperson to amend:
   a) Section 8.2.2 to make declaration of scientific name optional by including a statement “The scientific name of the product is optional”.
   b) Section 8.3 to clearly include its main elements as follows:
      - 8.3 Country of Origin and Country of Harvest;
      - 8.3.1 Country of Origin shall be declared
      - 8.3.2 Country of Harvest (optional)
      - 8.3.3 Region of Harvest and Year of Harvest (optional)

Section 9 Methods of analysis and sampling

35. CCSCH5 endorsed the proposed provisions for the methods of analysis noting that there had been collaboration with the delegates to CCMAS to assist in selection of the methods as well as the determination of their Type as required by the Codex Procedural Manual.

Conclusion

36. CCSCH5 agreed to:
   I. forward the draft Standard for dried oregano to CAC44 for adoption at Step 8 (Appendix II); and
   II. forward the revised provisions for labelling and methods of analysis and sampling to the appropriate committees for endorsement.

DRAFT STANDARD FOR DRIED OR DEHYDRATED GINGER (Agenda item 4.1)7

37. Nigeria as EWG Chair introduced the Agenda item highlighting that besides the original terms of reference, the EWG had also considered matters referred from CCFA, CCFL and CCMAS.

38. CCSCH5 considered the proposed draft standard section by section, making editorial corrections and revising provisions to ensure consistency in the use of terms such as “aroma” vs “odour”; “chemical requirements” vs “chemical characteristics”; and “physical requirements” vs “physical characteristics”, and agreed on the following:

   Section 1 Scope
   39. To delete “or culinary herbs” from the scope noting that the standard covered spices only.

   Section 2.1 Product Definition
   40. To delete the terms “roots” and “bulbs”, noting that ginger was technically classified under rhizomes.

   Section 3 Essential Composition and Quality Factors
   41. Not to insert a provision for infestation to clarify that foreign matters shall be visible to the naked eyes. The Chairperson explained that this issue had been considered at the previous session and it had been decided not to include this provision since all the relevant parameters relating to infestation had been covered in the table on physical characteristics.

   42. Not to insert a provision for adulteration. The Chairperson reminded CCSCH5 that this issue had also been discussed at CCSCH3, which had noted that the individual quality parameters as laid down in various sections of the standard were the basis for the quality evaluation of the spice and therefore anything not included was effectively an adulterant and that CCSCH3 had agreed a specific reference to economic adulteration would not add value to the text8.

7 CX/SCH 21/5/4; CX/SCH 21/5/4 Add.1 (comments of Chile, Colombia, Cuba, EU, Iraq, United States of America, CCTA and IOSTA); CRD06 (Methods of analysis); CRD10 (comments of Kenya, Tanzania and Thailand), CRD17 (comments of Thailand), CRD19 (comments of EU), CRD24 (comments of India) and CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Peru, Venezuela, Guyana and Cuba); CRD33 (Report of the informal meeting on Draft Standard for Dried or Dehydrated Ginger)

8 REP17/SCH para. 32
Section 4 Food additives

43. To align the food additives provision with the text recommended by CCFA (see paragraph 31).

44. To include a provision for processing aids in accordance with the requirements of the PM, and consequentially delete Calcium oxide and Sulfur dioxide from Annex I Table 2 (see paragraph 63).

Section 5 Contaminants

45. To align with the guidance provided by CCCF to commodity committees that documents such as codes of practice could be referenced in the sections of contaminants, and thus include the wordings “other relevant Codex texts” in this section, as this would provide more flexibility in the application of the standard.

46. To include reference to the Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (CXC 78-2017) since dried ginger could support fungal growth associated with mycotoxin production.

Section 8.2 Name of the product

47. To replace “the name of the product” in Section 8.2.1 with “the common name of the product” for the purpose of aligning the provision with section 2.1 Product Definition.

48. To request to address the issue of translation to Spanish as there were some inconsistencies in translation of this section into Spanish

Section 8.3 Country of Origin

49. Recalling the discussion and the decision taken under Agenda item 2, Members expressed the following opinions on how the decision could impact the product under consideration:

- Country of origin and country of harvest might be different. As indicated in the General Standard for the Labelling of Prepackaged Foods (CXS 1-1985), when a food undergoes processing in a second country which changes its nature, the country in which the processing is performed shall be considered to be the country of origin for the purposes of labelling;

- Country of harvest should always be displayed on the label since the country of harvest was more relevant than the country of origin, while the indication of the region of production could be optional;

- In order to avoid food fraud, country of harvest should be mandatory if it was different from the country of origin. This could help consumers understand the different handling practices in harvest/storage between one country and another country; and

- There were no definitions of country of harvest, region of harvest and year of harvest in the General Standard for the Labelling of Prepackaged Foods (CXS 1-1985). Information on these aspects was not verifiable and inclusion of provisions in this regard might cause confusion.

50. The Chairperson proposed that country of origin should be mandatory while country of harvest, region of harvest and year of harvest should be optional, and it was necessary to include all these requirements in the draft standard.

51. CCSCH5 agreed with the proposal from the Chairperson to align this provision with paragraph 34(b).

52. CCSCH5 agreed that these provisions should be utilized in all the draft or proposed draft SCH standards considered at this session unless otherwise specified.

Section 8.4 Commercial identification

53. To delete this section as there were no requirements for sizing in the draft standard.

Section 8.5 Inspection mark (optional)

54. To delete this section.

Section 8.6 Labelling of non-retail containers

55. In response to a proposal to revise this section as “to be developed” since CCFL was drafting a guidance for the labelling of non-retail containers, CCSCH5 agreed that this Section should remain unchanged since it contained standardised text existing in all SCH standards and could be reviewed once the guidance developed by CCFL was adopted.

Section 9.1 Methods of Analysis

56. The Codex Secretariat clarified that there should be only one Type I method for each provision listed in a commodity standard unless these methods are complementary or identical.
57. CCSCH5 noted the parameters in Table 4 Methods of analysis should be aligned with the parameters indicated in Annexes I and II of the standard, and agreed to send for endorsement of the revised Table 4.

58. CCSCH5 proposed that CRD06 Rev on methods of analysis should be reviewed and incorporated into the template for SCH standards for future reference.

Section 9.2 Sampling Plan

59. To replace the text with “to be developed”.

Annex I

60. CCSCH5 noted divergent views on parameters and values in the Table for chemical requirements including:
   - The parameter total ash for bleached/unbleached should have the same values for “whole/pieces” and “ground/powdered” forms;
   - As bleaching agents were a recognised functional class under food additives, calcium oxide (INS 529) and sulfur dioxide (INS 220) should be included as food additives;
   - Since sulphites could be naturally occurring, and depending on the method of analysis, even natural substances containing sulfur might be titrated as SO2, the note “sulfur dioxide shall not be detected” should be replaced with “SO2 < 150mg/kg, as residual sulfur dioxide” in Table 2 (Notes);
   - Different values for Acid Insoluble Ash expressed on dry basis in “whole/pieces form” and calcium (as oxide) expressed on dry basis in “whole/pieces form” and “ground/powdered form” were proposed.

Annex II

61. Members expressed the following views:
   - Scientific justification for the proposed values for some parameters i.e. Whole insect dead and Mammalian excreta in Annex II should be provided. The basis for proposed values for the tolerances in the different styles of ginger were unclear.
   - The unit measurements for different parameters should be expressed correctly, for example, Mammalian excreta and Other Excreta should be milligram per kilogram rather than particles per 10 grams.
   - For some parameters, such as Mammalian excreta and Other excreta in “pieces” and “grounded/powdered” forms, there were no validated analytical methods for determination of these parameters, these should not be assigned any values. Instead, these parameters should be indicated as “Not Applicable” (N/A), which did not refer to “zero”;
   - In order to improve efficiency and in light of the fact that there was no sufficient testing methods, the parameters contained in table three could be combined and simplified where possible. Furthermore, considering the Codex principle of consumer protection, all the values were proposed to strive towards 0%.

62. Due to time constraints and the difficulty to achieving consensus, CCSCH5 agreed to request the EWG Chair (Nigeria), to undertake informal discussions to develop a workable proposal for both Annexes I and II.

63. CCSCH5 considered the outcome of the informal consultations, in CRD33, as the basis for discussion and reached consensus on the following:
   a) Calcium oxide and sulfur dioxide were used as “processing aids” in dried and dehydrated ginger for bleaching purposes, and taking into account the explanation by the Codex Secretariat that in the PM, processing aids were listed under food additives, and thus decided to transfer the substances to Section 4 Food Additives from Annex I;
   b) Agreed on all the other parameters and their associated values as contained in Annex I of CRD33.

64. CCSCH5 discussed the revised Annex II in CRD33 and agreed to:
   - change the parameter for “Whole insects, dead” to “Whole dead insects”;
   - revise the value for “Mould visible/Insect defiled/infested” in “pieces form” as “NA” noting that a specific value could be assigned in future once relevant information became available.
   - endorse all the proposed values and corresponding changes as laid out in Annex II
Conclusion

65. CCSCH5 agreed to:
   I. forward the draft standard for dried roots, rhizomes and bulbs — dried or dehydrated ginger to CAC44 for adoption at Step 8 (Appendix III);
   II. provide clarification to CCFA that the two substances, i.e. calcium (as oxide) and sulfur dioxide were used as processing aids; and
   III. forward the revised provisions on food additives, labelling (Section 8.3 – Country of Origin and Country of Harvest) and methods of analysis and sampling to the appropriate committees for endorsement.

DRAFT STANDARD FOR DRIED CLOVES (Agenda item 5.1) 9

66. Nigeria, as Chair of the EWG introduced the Agenda Item, recalling that CCSCH4 agreed to forward the proposed draft standard for dried floral parts – dried cloves to CAC42 for adoption at Step 5 and re-establish an EWG chaired by Nigeria. The EWG considered outstanding issues taking into account discussions at CCSCH4, comments received at Step 6 (see CX/SCH 21/5/5 Add.1), as well as matters referred by CCFL and by CCMAS. Four rounds of consultations were conducted, however the responses were low as result of the COVID-19 pandemic.

67. CCSCH5 discussed the draft standard section by section, made editorial corrections, and aligned the text to SCH standard template as well as the relevant decisions taken in the previous agenda items. CCSCH5 agreed on the following changes:

Title

68. To amend the title to “Draft standard for dried floral parts – cloves”, in line with the decision of CCSCH3 that the work on cloves would be based on the general concept of group standard for dried floral parts.

Section 1 Scope

69. To delete reference to culinary herbs noting that cloves belong to spices; and to clarify that the cloves are offered for “repackaging” and not “repacking”. In this regard, it was noted that the term “repackaging” should be applied across all the draft CCSCH standards and in accordance with SCH template.

Section 2.1 Product definition

70. To use the term “common” name rather than “generic” name and to ensure consistency with other SCH texts; to use of the term “dried” only in case of cloves; and to use the valid names rather than synonyms as proposed by a delegation.

Section 3.2.3 Classification

71. To indicate that the section on classification was optional, and to align the section with Table 2 and Table 3 by inserting the provision - “If traded as classified, the provision in Annex 1 and 2 applies as minimum requirements”. CCSCH5 noted the submission that generally cloves were traded unclassified, however if classified, they should comply with the prescribed requirements.

Section 4 Food additives

72. To align the food additives provision with the recommendation of CCFA (see paragraph 31)

Section 5 Contaminants

73. To include “other relevant Codex texts” at the end of section 5.1 with the aim of providing more flexibility and aligning with other SCH standards.

Section 8 Labelling

74. To align the section 8.3 in accordance with the decision taken under paragraph 34(b)

75. To expunge the provisions on “commercial identification - sizing” and “inspection mark (optional)” as these were not applicable to cloves or there was no available information for the two requirements.

Section 9 Methods of analysis and sampling

76. To realign Section 9 to be consistent with the PM, i.e. “Methods of Analysis and Sampling”, and to replace the text “Section 9.2. Sampling plan” with “to be developed”.

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9 CX/SCH 21/5/5; CRD11 (comments of Kenya, Tanzania, Thailand); CRD18 (comments of Malaysia); CRD19 Rev. (comments of EU); CRD24 (comments of India); CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Peru, Venezuela, Guyana and Cuba); CRD28 (comments of Ecuador)
Annex I

77. To clarify that the parameters for “Total ash”, “Acid insoluble ash” and “Volatile oils” should be expressed on a dry matter basis.

Annex II

78. To note the explanation that for “Mammalian or/and other excreta”, and “mould visible” in ground cloves, there were no validated analytical methods for determination of these parameters and as such these should not be assigned any value. The parameters were assigned “Not Applicable” (N/A).

79. To change the units of measurement for “Mammalian or/and other excreta” by weight to milligram (mg) per kilogram (kg).

80. To insert the following missing footnotes in Table 3 to define or explain: “Extraneous matter” (Footnote 1); “Foreign matter” (Footnote 2) and “other excreta” (*Footnote), and a new footnote to explain (N/A), i.e., not applicable.

Conclusion

81. CCSCH5 agreed to:
   I. forward the draft Standard for dried floral parts-cloves to CAC44 for adoption at Step 8 (Appendix IV);
   and
   II. forward the revised provisions on labelling (Section 8.3 – Country of Origin and Country of Harvest) and methods of analysis and sampling to the appropriate committees for endorsement.

DRAFT STANDARD FOR SAFFRON (Agenda item 5.2)\textsuperscript{10}

82. The Islamic Republic of Iran, as the chair of EWG, introduced the Agenda item, referring to the progress made since CCSCH4.

83. CCSCH5 considered the draft standard for saffron section by section and made several editorial amendments to ensure consistency with other SCH standards.

84. CCSCH5 made the following proposals and decisions:

Title

85. To align the title of the draft standard to be consistent with the scope by including the term dried, i.e. “Standard for dried saffron”;

Section 3.2.3 Classification

86. To align the provision with other SCH standards by changing “Grade I” to “Extra class”, and consequentially reassigning numbers to subsequent grades (Extra Class, Class I, Class II).

Section 6 Hygiene

87. To amend the title of the guideline referred to in 6.2 to Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (CXG21-1997).

Section 8 Labelling

88. CCSCH5 noted conflicting opinions regarding declaration of country of harvest:
   - Some members held the view that this provision should be mandatory given the high value of saffron and the vulnerability to fraud; and
   - Other members held the view that the provision for the country of harvest should be optional to ensure consistency with other CCSCH standards.

89. A member proposed that the provision 8.3 be re-discussed by the EWG.

Section 8.5 Inspection Mark (optional)

90. To expunge the section for inspection mark.

\textsuperscript{10} CX/SCH 21/5/6; CX/SCH 21/5/6 Add.1; CRD06 (Methods of analysis), CRD12 (comments of Kenya and Tanzania), CRD17 (comments of Thailand), CRD18 (comments of Malaysia), CRD19 (comments of EU), CRD21 (comments of Morocco), CRD24 (comments of India), CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Peru, Venezuela, Guyana and Cuba), CRD28 (comments of Ecuador)
Section 9 Methods of analysis and sampling

91. To align methods of analysis and sampling with those provided in CRD6 Rev.

92. To insert “9.2 sampling plan to be developed” under this section.

Table 1 Chemical characteristics

93. CCSCH5 noted the different views on taste strength (picrocrocin) and coloring strength (crocin);

i. In order to ensure the high value that customers expect for the extra class, the values for picrocrocin and crocin for the extra class should be established as proposed by the EWG, 80 and 220 respectively and that the crocin value was only 20 above the ISO standard and thus the difference was marginal. It was also pointed out that the trade practice for the extra class of saffron required the value of crocin as 260.

ii. Requirements for picrocrocin and crocin should be fully aligned with current ISO standard and trade practices for all the classes/grades, and that scientific justification should be provided if the standard adopted values higher than those in the ISO standard that had already existed. Furthermore, CCSCH would be able to revisit the standard in case ISO upgraded these values.

iii. Based on the principle of inclusiveness in the development of Codex standard and that CAC43 had already adopted the draft standard at Step 5, the requirements for picrocrocin and crocin should remain the same as originally agreed at CCSCH4. The values provided minimum requirements, for picrocrocin and crocin as 50 and 120 respectively, for all the styles without mandatory classification of class/grade. Buyers and sellers were able to agree on products with higher contents of picrocrocin and crocin, should there be the need.

94. In a spirit of compromise, it was proposed to insert an additional class as “class/grade III” to align the classes more closely with those in the ISO standards and reclassify the chemical characteristics. However, there was no consensus in following the newly developed table due to lack of time to consult with expertise at a national level.

95. A delegation proposed that ND should be replaced by zero to be in line with other standards developed by CCSCH.

Table 2 Physical characteristics

96. CCSCH5 noted the different comments and proposals on amendments to the table for tolerances including: to align extraneous matter and foreign matter with the ISO standard for extra class, class/grade I and class/grade II; to include a provision for live insects; to provide scientific justifications on some of the values proposed under the different parameters, including insect fragment and rodent filth; to subdivide categories as whole filament, cut filament and powdered style with the values inserted for each subcategory.

97. It was also noted that the Tables I and II need further work to clarify the concerns raised by Members. Delegation suggested that the letters “ND” should be replaced with “N/A” or zero(0) to be consistent with other standards developed by the committee.

Conclusion

98. CCSCH5 agreed to:

I. hold the draft standard for dried saffron at Step 7 and to return, for consideration at step 6 the Sections: 3.2.2 (Annex I and Annex II); 3.2.3 and Section 8.3 only, taking into account the comments made at and/or submitted to CCSCH5; and

II. re-establish an EWG, chaired by Iran and co-chaired by Greece, working in English only, to consider only the outstanding issues, namely sections “3.2.2 Chemical and physical characteristics”, Annex I and Annex II, “3.2.3 Classification”, and “8.3 Country of origin and country of harvest”.

III. request CAC to extend the timeline for completion until CCSCH6.

99. CCSCH5 agreed that no further comments would be requested nor discussion on the standard would be held at its next session with the exception of the sections highlighted in paragraph 98 that were returned to Step 6 for comments and further consideration at its next session.
DRAFT STANDARD FOR DRIED BASIL (Agenda item 6.1)

100. Egypt as Chair of the EWG introduced the Agenda Item, summarizing the work conducted by the EWG and noting that all outstanding issues had been resolved.

101. CCSCH5 considered the draft standard section by section, made editorial corrections and endorsed the following sections to which there were no substantial changes made: i.e. Section 1 Scope; Section 5 Contaminants; Section 6 Hygiene; Section 7 Weights and Measures.

102. For the remaining Sections of the draft standard, CCSCH5 made the following comments and decisions:

Section 2 Product definition

103. To replace the term “General name” with “Common name” to align with the existing practice in the sector.

Section 3.1 Composition

104. To replace “dried culinary leaves” with “dried basil” with a view to ensure consistency between the section and the product definition.

Section 4 Food additives

105. To align the food additives provisions with the standardized text recommended by CCFA as in paragraph 31.

Section 8 Labelling

106. To align Sub-section 8.2.1 with Section 2.1 Product description by inserting the term “Common name”. The following wordings previously contained in a footnote was inserted in the text of the section, i.e. “The Common name may be used if the product is a blend of the different species listed in Table 1. If a trade name is used then the product shall be a minimum of 80% of the species listed for that trade name”.

107. To amend Sub-section 8.2.2 by deleting both the term “species” in square bracket and the footnote stating, “Other distinctly different styles besides the three described in this standard were allowed” noting that this aspect was already covered by section 2.2.1 (bullet 4).

108. To revise Section 8.3 to align the text as agreed under agenda item 4.1 (see paragraph 34(b)), and expunge Sections related to Commercial Identification and Inspection mark.

Section 9.1 Methods of analysis and sampling

109. To agree with the revised methods of analysis as provided by Egypt in consultation with relevant experts for CCMAS during the session.

Annex I

110. To clarify that the parameters for total ash, acid-insoluble ash and volatile oils should be expressed on dry basis, and thus made the necessary editorial corrections.

111. To revise the tolerances for acid insoluble ash under the styles for “Crushed/rubbed/ flaked” and “Ground/powdered” to be of the same value, i.e. 2.

Annex II

112. To revise the tolerances for the different parameters in the different styles of Basil.

113. To clarify N/A in a footnote that N/A as used in the Table means: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero.

114. To include the parameter for Live insects in the Table; and to expunge the parameter for colour defects from the table.

Conclusion

115. CCSCH5 agreed to:

i. forward the draft standard for dried basil to CAC44 for adoption at Step 8 (Appendix V); and

ii. forward the revised provisions on labelling (Section 8.3 – Country of Origin and Country of Harvest) and methods of analysis to the appropriate committees for endorsement.

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11 CX/SCH 21/5/7; CX/SCH 21/5/7 Add1; CRD13 (comments of Kenya and Tanzania); CRD18 (comments of Malaysia); CRD19 (comments of EU); CRD24 (India); CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Perú, Venezuela, Guyana and Cuba); CRD28 (comments of Ecuador);
PROPOSED DRAFT STANDARD FOR DRIED OR DEHYDRATED CHILLI PEPPER AND PAPRIKA
(Agenda item 7.1)\textsuperscript{12}

116. India, as Chair of the EWG, introduced the Agenda Item, recalling that CCSCH4 agreed to establish an EWG chaired by India to redraft the proposed draft standard for circulation for comments at Step 3. The EWG had conducted three rounds of consultations; however, the responses were low due to the COVID-19 pandemic. It was noted that the EWG had reached consensus on most sections; however some variance in comments was observed on the values for chemical and physical factors provided in Annexes I and II.

117. CCSCH5 discussed the proposed draft standard section by section and taking into account the decisions taken under the different agenda items and provided the following guidance and recommendations:

**Section 1 Scope**

118. To align the scope (language style) with the Template for SCH standards in order to be consistent with the already adopted SCH.

**Section 2.1 Product definition**

119. To include in Table 1:
   - Chilli pepper (including Chile or Ají/Pimentón/Hot Pepper) in a separate row different from that of paprika and its scientific name Capsicum annuum L.
   - Include alternative common names for chilli peppers such as Chile or Aji/Pimentón/Hot Pepper
   - *Capsicum baccatum* L. under the scientific names for Chilli.

120. To delete the footnote, i.e. * As per International Plant Names Index (IPNI) - www.ipni.org.

**Section 2.2 Styles**

121. To delete “form” from the heading subsection and insert “flaked” in the group “Crushed/Cracked/broken”.

122. To revise and consolidate the text in the paragraph to read:

   “Ground chilli pepper or/and ground paprika is the product obtained by grinding whole dried chilli pepper or paprika with or without the placenta, seeds, with or without calyx and stalk, without any other added matter.”

123. To delete the qualitative colour requirements for chilli pepper and paprika; as well as the particle size requirement for the ground product.

**Section 3.2.3 Classification**

124. To align the classification with the Codex standards for commodities i.e. Extra, Class/Grade I and Class/Grade II.

**Sections 3.3 Classification of “Defectives” and 3.4 Lot Acceptance**

125. To delete these two sections consistent with the previous decision of CCSCH.

**Sections 4 Food additives, 5 Contaminants and 6 Hygiene,**

126. To align, as appropriate, the text of these sections with those used in other SCH standards discussed at the Session.

**Section 8.3 Country of origin and harvest**

127. To align the section with the requirements in 34(b)

**Section 8.5 Inspection mark (optional)**

128. To delete the section

**Annex I and Annex II**

129. To reconsider the proposed values for the different parameters in the Table 2 and Table 3, as some values could be higher and/or parameters may not be applicable in certain (product) styles.

\textsuperscript{12} CX/SCH 21/5/8; CRD03 (Report of the In-session Working Group); CRD06 (Typing of Methods of Analysis); CRD07 (Discussion Paper on Grouping, by United States of America); CRD14 (comments of Peru, the Philippines, Tanzania, Thailand); CRD17 (comments of Thailand); CRD19 Rev. (comments of EU); CRD21 (comments of Morocco); CRD22 (comments of Brazil); CRD24 (comments of India); CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Peru, Venezuela, Guyana and Cuba); CRD30 (proposed draft standard, India)
130. To share data where appropriate to scientifically justify the proposed values.

**Conclusion**

131. CCSCH5 agreed to:

I. return the draft Standard dried or dehydrated chilli pepper and paprika to step 2/3 for redrafting;

II. establish an EWG, chaired by India and working in English only, to redraft the document taking into account comments submitted at the session, for circulation for comments at Step 3; and

III. request CAC44 to extend the timeline for completion of the work to CCSCH6.

**PROPOSED DRAFT STANDARD FOR DRIED NUTMEG (Agenda item 8.1)**

132. Indonesia, as EWG and IWG Chair, introduced the Agenda Item, noting that the EWG took into account the discussions at CCSCH4, comments received at Step 3, as well as matters referred by CCFA, CCFL, and CCMAS, in its work. Based on the comments received in response to CX/SCH 21/5/9 Rev, Indonesia had prepared CRD23 for discussions by an IWG during CCSCH5.

133. CCSCH5 considered the draft standard as modified by the IWG and contained in CRD4 as the basis for discussion, noting that the sub-section on Quality Criteria had been agreed for deletion by the IWG.

134. CCSCH5 made editorial corrections, aligned the text to SCH standard template and other draft SCH standards considered at the current session, and made the following comments and decisions:

**Section 1 Scope**

135. To replace “seeds” in the last line of the section with “nutmeg”.

**Section 2.2 Styles**

136. Not to replace the text “Whole Inshell” with “Seed with shell” and “Whole shelled” with “seed without shell” as had been proposed by a member, noting that this issue had been widely discussed by the EWG, the IWG, and CCSCH4.

**Section 3.2.3. Classification**

137. To insert “optional” to the title of the section, to take into account the existing trade practices.

138. To revise the second provision under this section to read “When dried nutmeg are traded as classified, the chemical and physical characteristics in Annexes I and II apply as the minimum requirements”, noting that there were no quality requirements for different classes in Annex II.

**Section 5 Contaminants**

139. To make reference to “Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (CXC 78-2017) and other relevant Codex texts”.

**Section 6 Food Hygiene**

140. To align the title of the section with the Procedure Manual, i.e. deleted “Food”; to insert “Spices and dried culinary herbs” in order to associate Annex III with its correct title; and to correctly provide the reference number for the associated Code of Practice, i.e. (CXC 75-2015), (see sub-section 6.1).

**Section 8.3 Country of origin and Country of harvest**

141. To align the text as agreed under agenda item 4.1 (see paragraph 34(b))

**Section 8.4 Commercial identification**

142. To delete Section 8.4.1 as there were no parameters relating to the classes.

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13 CX/SCH 21/5/9 Rev; CX/SCH 21/5/9 Add.1 (comments of Chile, Costa Rica, Colombia, Cuba, India, Iraq, Japan, Panama, Sri Lanka, Syria, Uganda, and United States of America); CRD04 (Report of the In-session working group on the proposed draft Standard for dried nutmeg), CRD15 (comments of Kenya, Tanzania and Thailand), CRD17 (comments of Thailand), CRD18 (Malaysia), CRD19 (comments of EU), CRD23 (comments of Indonesia), CRD24 (comments of India), CRD25 (comments of Saudi Arabia) and CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Perú, Venezuela, Guyana and Cuba)
Annex I

143. The following views were noted:

- The content of volatile oils was highly variable, depending on the place where the nutmegs had been grown, the age of the tree, the experience of the producers and the degree of ripening of the seeds so different ranges of values for whole, broken and ground/powdered nutmeg were proposed;
- The requirements for volatile oils were “minimum” and that ranges of values were not necessary as they were included; and
- Calcium oxide was not used for nutmeg; therefore the parameter should be deleted.

144. CCSCH5 agreed:

- to replace the unit of measurement for Volatile Oils content with "mL/100g (min)";
- to insert ranges of values for whole, broken and ground/powdered nutmeg as 3.5-11%, 3.0-11% and 2.5-11% respectively; and
- to put the proposed values for “Volatile Oils content” and the parameter for “Calcium as Ca-Oxide” in square brackets.

Annex II

145. To revise the parameter for “Mould visible” as “Mould visible/ Insect defiled/ infested”.

146. To retain the parameters for “Mould visible/ Insect defiled/ infested” and “Insect fragments” in square brackets.

Annex III

147. To submit for endorsement of the method of analysis noting that the years associated with the reference numbers for methods be deleted, noting the footnote that “Latest edition or version of the approved methods should be used”

148. A Member suggested including provisions such as “myristicin and methoxysafrole” since nutmeg contained these substances, which might have detrimental health effect.

Conclusion

149. CCSCH5 agreed to:

I. forward the proposed draft Standard for dried seeds - nutmeg to CAC44 for adoption at Step 5 (Appendix VI) and extension of the timeline for completion until CCSCH6;
II. forward the provisions on food additives, labelling and methods of analysis and sampling to the appropriate committees for endorsement; and
III. re-establish an EWG, chaired by Indonesia and co-chaired by India, working in English, to consider those parameters or values in square brackets, taking into account the comments submitted at Step 6 as well as discussions at the current session.

PROPOSAL FOR NEW WORK (REPLIES TO CL 2017/67 and CL 2019/100-SCH) (Agenda item 9)

9.1 Report of the In-Session Working Group on Priorities and Group Standards

150. The United States of America, as Chair of the IWG on Priorities and Standards layout, presented its report (CRD2) highlighting the recommendations.

151. CCSCH4 noted the challenge of non-availability of trade data for some individual spices and that in trade spices are grouped together without any distinction between them. The three recommendations were considered as follows.

Recommendation 1: Submission of three new work proposals to the Commission

152. CCSCH5 endorsed the recommendation with the following amendments to the document:

- In case of the project documents for small cardamom and turmeric, aligned the relevance of the proposed new work to the Codex Strategic Plan 2020-2025;
- In case of the project document on the group standard for spices derived from dried fruits and berries, provided a qualitative indication of the proposed timeline for completion of work.

14 CRD02 (Report of In-session working group); CRD05 (comments of Iran); CRD08 (comments of United States of America); CRD16 (Thailand); CRD28 (comments of Ecuador); CRD31 (comments of UK)
153. A Member expressed support that CCSCH work be undertaken based on grouping, noting that spices and culinary herbs that do not fit into the groups could be elaborated as individual stand-alone standards.

154. Without objec{ing to the fact that the work of the CCSCH is undertaken on the basis of the grouping, another Member pointed out that spices and culinary herbs which do not fit into the groups or which come under different denominations according to the regions could be excluded from the scope of the standard for spices derived from dried fruits and berries.

155. Iran drew the attention of CCSCH5 to their project document (CRD5) on Turmeric, and that it had not been taken into account during the IWG. The Chair of the IWG, confirmed that the document was nearly identical to the proposal by India, and that it had been inadvertently omitted from the report of the IWG. However, the report will be revised to acknowledge it.

Recommendation 2: Merger of new work for small cardamom with work on group standard

156. CCSCH5 did not endorse the proposal, and agreed that the work should continue in parallel and would be merged in the future. All work will follow the format of group standards.

Recommendation 3: Updating project documents for new work

157. It was noted that the project document had already been updated with appropriate information.

Conclusion

158. CCSCH5 agreed:

I. to submit for approval by CAC44 the proposals for new work for: small Cardamom, Turmeric and Group standard for spices derived from dried fruits and berries,

II. to establish the following EWGs, subject to the approval of new work, to prepare the proposed draft standards for circulation for comments at Step 3 and consideration at its the next session.

a. EWG to prepare a draft standard for small cardamom (Appendix VII), chaired by India and co-chaired by Iran and working in English only.

b. EWG to prepare a draft standard for turmeric (Appendix VIII), chaired by Iran and co-chaired by India and working in English only.

c. EWG to start work to prepare a group standard for spices in the form of dried fruits and berries focusing on the following four spices - Allspice, Juniper berry, Star anise and Vanilla (Appendix IX), chaired by the United States of America and co-chaired by India and working in English only.

d. The EWGs will submit their reports at least three months before CCSCH6.

III. to request the Codex Secretariat to issue a Circular Letter requesting proposals for new work for consideration at CCSCH6.

9.2 Update to the Template for the Standards for Spices and Culinary Herbs

159. CCSCH5 endorsed the recommendation of the IWG on Priorities, Standard Layout, and Group Standards in CRD2 to revise the layout of the template by a small working group of delegations; and agreed to establish a small working group chaired by United States of America, assisted by Brazil, Ghana, India, Islamic Republic of Iran and United Kingdom.

160. The task of the working group would be to revise the template of standard layout in the document (SCH/5 INF/01) taking into account the discussions held at CCSCH5 and make recommendations to CCSCH6 on the possible changes.

161. The Codex secretariat informed the meeting that work on ensuring consistency in terminologies in French and Spanish versions of the template will soon be undertaken.

OTHER BUSINESS (Agenda item 10)

162. There were no issues discussed under this Agenda item as time did not permit to have a presentation from ISO.

DATE AND PLACE OF THE NEXT SESSION (Agenda item 11)

163. CCSCH5 noted that CCSCH6 is tentatively scheduled to be held in approximately 18 months subject to confirmation by the host government in consultation with the Codex Secretariat.

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15 CRD2 (Report of In-session working group; CRD07 Rev (comments of India and United States of America); CRD27 (comments of Brazil, Chile, Ecuador, Argentina, Paraguay, Colombia, Costa Rica, Perú, Venezuela, Guyana and Cuba)

16 CX/SCH/5 INF/02
APPENDIX I

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Govt. of India)
Dr A Ranjith
Scientist - C
Spices Board India
Cochin
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DRAFT STANDARD FOR DRIED OREGANO
(For adoption at Step 8)

1  SCOPE
This Standard applies to dried leaves/flowers of oregano, as defined in Section 2.1, offered for direct consumption, as an ingredient in food processing or for repackaging if required. It excludes dried oregano intended for industrial processing.

2  DESCRIPTION
2.1  Product definition
Dried oregano is the product obtained from the leaves and the flowering tops of the plants mentioned in Table 1 and processed in an appropriate manner, undergoing operations such as cleaning, drying, rubbing and sifting.

Table 1. Dried culinary herbs covered by this Standard

<table>
<thead>
<tr>
<th>General name</th>
<th>Scientific name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregano</td>
<td><em>Origanum</em> spp. L., except <em>Origanum</em> majorana L.</td>
</tr>
<tr>
<td>Mexican oregano</td>
<td><em>Lippia</em> spp. L.</td>
</tr>
</tbody>
</table>

2.2  Styles
2.2.1  Dried oregano may be offered in one of the following styles:
   a) Whole;
   b) Crushed/Rubbed: processed to varying degrees, ranging from a coarse to fine crush; and
   c) Ground/Powdered: processed into a powder.

2.2.2  The particle size of ground/powdered styles is determined by contractual agreement between buyer and seller.

3  ESSENTIAL COMPOSITION AND QUALITY FACTORS
3.1  Composition
Product as defined in Section 2.

3.2  Quality factors
3.2.1  Moisture content
Dried oregano (whole, crushed/rubbed or ground/powdered) shall not contain more than 12% moisture.

3.2.2  Odour, flavour and colour
Dried oregano shall have a characteristic odour and flavour, varying according to the composition/chemical content of the main components of the volatile oil (carvacrol and/or thymol), which may vary depending on geo-climatic factors/conditions. Dried oregano shall be free from any foreign odour or flavour and especially from mustiness. Dried oregano shall have a characteristic colour varying from pale greyish yellow green to dark green.

3.2.3  Classification
Whole and crushed/rubbed oregano may be classified in three classes/grades according to the physical and chemical requirements as specified in Table 2 and 3, respectively.
   - Extra
   - Class/Grade I
   - Class/Grade II

When dried oregano is treated as unclassified/ungraded, the chemical and physical characteristics of Class/Grade II apply as the minimum requirements.
3.2.4 Physical characteristics

Whole, crushed/rubbed and ground/powdered oregano shall comply with the physical requirements specified in Table 2.

Table 2. Physical requirements for whole, crushed/rubbed and ground/powdered oregano (allowed tolerance for defects)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Whole or Crushed/Rubbed Oregano</th>
<th>Ground/Powdered Oregano</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extra</td>
<td>Class/Grade I</td>
</tr>
<tr>
<td>Extraneous matter (¹) (maximum % mass fraction)</td>
<td>0.5</td>
<td>2</td>
</tr>
<tr>
<td>Foreign matter content (²) (maximum % mass fraction)</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Tolerance for oregano powder among non-powder styles (% smaller than the particle size indicated) (³)</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Dead insects (maximum number/100 g)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Visible mould/insect damage (maximum % m/m) (applies to whole only)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Live insects (count /100g)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mammalian excreta maximum (mg/Kg) (applies to whole only)</td>
<td>1.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Other excreta (maximum mg/Kg) (⁴) (applies to whole only)</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

(¹): Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product, such as stems/sticks, etc.
(²): Any visible/detectable objectionable foreign matter or material not usually associated with the natural components of the spice plant, such as stones, burlap bagging, metal, foreign leaves etc.
(³): Particle size is evaluated upon request accompanied by supporting documents.
(⁴): Excreta from other animals such as reptiles and birds.
(⁵): N/A: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero.

3.2.5 Chemical characteristics

Whole, crushed/rubbed and ground/powdered oregano shall comply with the chemical requirements specified in Table 3.

Table 3. Chemical requirements for whole, crushed/rubbed and ground oregano

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Whole or Crushed/Rubbed Oregano</th>
<th>Ground/Powdered Oregano</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extra</td>
<td>Class/Grade I</td>
</tr>
<tr>
<td>Total ash, % mass fraction (dry basis), maximum</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Acid-insoluble ash, % mass fraction (dry basis), maximum</td>
<td>1.2</td>
<td>2</td>
</tr>
<tr>
<td>Volatile oils, ml/100 g (dry basis), minimum</td>
<td>2.5</td>
<td>2.0</td>
</tr>
</tbody>
</table>

4 FOOD ADDITIVES

Anticaking agents listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in powdered form of the foods conforming to this Standard.

5 CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995) and Code of Practice for Weed Control to Prevent
5.2 The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

6 HYGIENE

6.1 It is recommended that the products covered by this Standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (CXC 1-1969), the Code of Hygienic Practice for Low-Moisture Foods (CXC 75-2015), Annex III Spices and Dried Culinary Herbs, and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

6.2 The products shall comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CXG 21-1997).

7 WEIGHTS AND MEASURES

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product.

8 LABELLING

8.1 The products covered by this Standard shall be labelled in accordance with the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985). In particular, the following specific provisions apply:

8.2 Name of the product

8.2.1 The name of the product shall be “dried oregano” or “oregano” when the omission of the word dry would not mislead or confuse the consumer.

8.2.2 The general name and style of the product shall be as described in Table 1 and Section 2.2 (styles). The scientific name of the product is optional.

8.3 Country of origin and country of harvest

8.3.1 Country of origin shall be declared

8.3.2 Country of harvest (optional)

8.3.3 Region of harvest and year of harvest (optional)

8.4 Commercial identification

- Class/Grade, if applicable
- Particle Size (optional)

8.5 Labelling of non-retail containers

Information for non-retail containers shall be given either on the package or in accompanying documents, except that the name of the product, lot identification and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.
9. METHODS OF ANALYSIS AND SAMPLING

9.1 Methods of analysis

<table>
<thead>
<tr>
<th>Provision</th>
<th>Method</th>
<th>Principle</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture</td>
<td>ISO 939</td>
<td>Distillation</td>
<td>I</td>
</tr>
<tr>
<td>Total ash on dry basis</td>
<td>ISO 939 and ISO 928</td>
<td>Calculation, Distillation and</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gravimetry</td>
<td></td>
</tr>
<tr>
<td>Acid-insoluble ash on dry basis</td>
<td>ISO 939 and ISO 930</td>
<td>Calculation, Distillation and</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gravimetry</td>
<td></td>
</tr>
<tr>
<td>Volatile oils on a dry basis</td>
<td>ISO 939 and ISO 6571</td>
<td>Calculation, Distillation and</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distillation</td>
<td></td>
</tr>
<tr>
<td>Extraneous matter</td>
<td>ISO 927</td>
<td>Visual examination followed by</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gravimetry</td>
<td></td>
</tr>
<tr>
<td>Foreign matter</td>
<td>ISO 927</td>
<td>Visual examination followed by</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gravimetry</td>
<td></td>
</tr>
<tr>
<td>Mammalian excreta</td>
<td>Macroanalytical</td>
<td>Visual examination</td>
<td>IV</td>
</tr>
<tr>
<td>Other excreta</td>
<td>Procedure Manual, USFDA, Technical Bulletin V:39 B (For whole)</td>
<td><a href="https://www.fda.gov/food/laboratory-methods-food/mpm-v-8-spices-condiments-flavours-and-crude-drugs#v32">link</a></td>
<td></td>
</tr>
<tr>
<td>Whole dead insect</td>
<td>MPM V:8 Spices, Condiments, Flavours and Crude Drugs A. General methods for spices herbs and botanicals (V 32)</td>
<td><a href="https://www.fda.gov/food/laboratory-methods-food/mpm-v-8-spices-condiments-flavours-and-crude-drugs#v32">link</a></td>
<td>IV</td>
</tr>
<tr>
<td>Mould visible</td>
<td>Method V:8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5)</td>
<td><a href="https://www.fda.gov/food/laboratory-methods-food/mpm-v-8-spices-condiments-flavours-and-crude-drugs#v32">link</a></td>
<td>IV</td>
</tr>
<tr>
<td>Insect Damage</td>
<td>ISO 927</td>
<td>Visual Examination</td>
<td>I</td>
</tr>
</tbody>
</table>

(1) Latest edition or version of the approved method should be used.

9.2 Sampling plan

To be developed.
APPENDIX III

DRAFT STANDARD FOR DRIED ROOTS, RHIZOMES AND BULBS —
DRIED OR DEHYDRATED GINGER
(For adoption at Step 8)

1  SCOPE
This Standard applies to plant products in their dried or dehydrated form as spices, defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes products for industrial processing.

2  DESCRIPTION
2.1 Product definition
Dried or dehydrated ginger is a product obtained from the rhizomes of the plant as mentioned in Table 1.

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried Ginger</td>
<td>Zingiber officinale Roscoe</td>
</tr>
</tbody>
</table>

2.2 Styles/forms
Dried or dehydrated ginger may be:
- Whole: single or branched rhizomes of varying sizes, which may be cut at both ends with the flattened circular shape intact;
- Pieces: comprising various cut, diced or sliced styles;
- Ground/powdered

3.  ESSENTIAL COMPOSITION AND QUALITY FACTORS
3.1 Composition
Dried or dehydrated ginger as described in Section 2 above shall conform to the requirements specified in Annexes I and II.

3.2 Quality factors
3.2.1 Odour, flavour and colour
The product shall have a characteristic odour, flavour and colour, which can vary depending on geo-climatic factors/conditions, and shall be free from any foreign odour, flavour and colour especially from rancidity and mustiness.

3.2.2 Chemical and physical characteristics
The generic product shall comply with the requirements specified in Annex I (Chemical characteristics – Table 2) and Annex II (Physical characteristics — Table 3). The defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.

4  FOOD ADDITIVES
4.1 Anticaking agents listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in powdered form of the foods conforming to this standard

<table>
<thead>
<tr>
<th>INS No.</th>
<th>Processing Aid</th>
<th>Maximum Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.1</td>
<td>529 Calcium oxide</td>
<td>2.5 mg/kg</td>
</tr>
<tr>
<td>4.2.2</td>
<td>220 Sulfur dioxide</td>
<td>150 mg/kg, as residual SO$_2$</td>
</tr>
</tbody>
</table>
5 CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995), the Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (CXC 78-2017) and other relevant Codex texts.

5.2 The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

6 HYGIENE

6.1 It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (CXC 1-1969), the Code of Hygienic Practice for Low-Moisture Foods (CXC 75-2015) Annex III on Spices and dried culinary herbs and other relevant Codex texts.

6.2 The products should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CXG 21-1997).

7 WEIGHTS AND MEASURES

Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product.

8 LABELLING

8.1 The products covered by the provisions of this Standard shall be labelled in accordance with the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985). In addition, the following specific provisions apply:

8.2 Name of the product

8.2.1 The common name of the product shall be as described in Section 2.1.

8.2.2 The name of the product may include an indication of the style as described in Section 2.2.

8.2.3 Trade name, variety or cultivar may be listed on the label.

8.3 Country of origin and country of harvest

8.3.1 Country of origin shall be declared

8.3.2 Country of harvest (optional)

8.3.3 Region of harvest and year of harvest (optional)

8.4 Labelling of non-retail containers

Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

9 METHODS OF ANALYSIS AND SAMPLING

9.1 Methods of Analysis

As described in Annex III, Table 4.

9.2 Sampling Plan

To be developed

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17Latest edition or version of the approved method should be used
Table 2. Chemical characteristics for dried or dehydrated ginger

<table>
<thead>
<tr>
<th>Product</th>
<th>Styles/ Forms</th>
<th>Total Ash on dry basis %w/w (max)</th>
<th>Acid Insoluble Ash on dry basis %w/w (max)</th>
<th>Moisture Content (%w/w (max))</th>
<th>Volatile Oils on dry basis mL/100g (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried or dehydrated Ginger</td>
<td>Whole and Pieces</td>
<td>8.0 (unbleached) 12.0 (bleached)</td>
<td>1.5</td>
<td>12.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Ground/ Powdered</td>
<td>8.0 (unbleached) 12.0 (bleached)</td>
<td>1.5</td>
<td>12.0</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

1. Vegetative matter associated with the plant from which the product originates but not accepted as part of the final product.
2. Any visible/detectable objectionable foreign matter or material not usually associated with the natural components of the spice plant, such as sticks, stones, burlap bagging, metal, etc.
3. Excreta from other animals, such as reptiles and birds.

*The combined defects for mould visible and insect defiled/infested should not exceed 3.0%.

N/A: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently there are no values. N/A does not refer to zero.

Table 3. Physical characteristics for dried or dehydrated ginger

<table>
<thead>
<tr>
<th>Product</th>
<th>Styles/ Forms</th>
<th>Extraneous matter %w/w (max)</th>
<th>Foreign matter %w/w (max)</th>
<th>Whole dead insects, Count/100g (max)</th>
<th>Live Insects Count/100g (max)</th>
<th>Mammalian Excreta mg/kg (max)</th>
<th>Other Excreta mg/kg (max)</th>
<th>Mould visible/Insect defiled/infested %w/w (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried or dehydrated Ginger</td>
<td>Whole</td>
<td>1.0</td>
<td>0.5</td>
<td>4.0</td>
<td>0</td>
<td>6.6</td>
<td>6.6</td>
<td>3.0*</td>
</tr>
<tr>
<td>Pieces</td>
<td>1.0</td>
<td>0.5</td>
<td>4.0</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ground/ Powdered</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Any visible/detectable objectionable foreign matter or material not usually associated with the natural components of the spice plant, such as sticks, stones, burlap bagging, metal, etc.
### Table 4. Methods of analysis

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Principle</th>
<th>Type¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture</td>
<td>ISO 939</td>
<td>Distillation</td>
<td>I</td>
</tr>
<tr>
<td>Total Ash on dry basis</td>
<td>ISO 939 and ISO 928</td>
<td>Distillation and Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Acid Insoluble Ash on dry basis</td>
<td>ISO 939 and ISO 930</td>
<td>Distillation and Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Volatile Oil on dry basis</td>
<td>ISO 939 and ISO 6571</td>
<td>Distillation followed by Volumetry</td>
<td>I</td>
</tr>
<tr>
<td>Extraneous Matter</td>
<td>ISO 927</td>
<td>Visual Examination followed by Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Foreign Matter</td>
<td>ISO 927</td>
<td>Visual Examination followed by Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Insect Damage</td>
<td>Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual) MPM: V-8. Spices</td>
<td>Visual Examination</td>
<td>IV</td>
</tr>
<tr>
<td>Whole dead insect</td>
<td>ISO 927</td>
<td>Visual examination</td>
<td>I</td>
</tr>
<tr>
<td>Mammalian/ Other Excreta</td>
<td>MPM V-8 Spices, Condiments, Flavours and Crude Drugs (Macroanalytical Procedure Manual) MPM: V-8. Spices (For whole)</td>
<td>Visual Examination followed by Gravimetry</td>
<td>IV</td>
</tr>
<tr>
<td>Live Insect</td>
<td>ISO 927 AOAC 960.51</td>
<td>Visual Examination</td>
<td>IV</td>
</tr>
<tr>
<td>Calcium (as oxide) on dry basis</td>
<td>ISO 1003, Annex A</td>
<td>Chemical reaction followed by gravimetry</td>
<td>IV</td>
</tr>
<tr>
<td>SO₂</td>
<td>AOAC 963.20</td>
<td>Colorimeter</td>
<td>II</td>
</tr>
</tbody>
</table>

¹ According to the definition of “types of method of analysis” as per Codex Procedural Manual Section II
APPENDIX IV

DRAFT STANDARD FOR DRIED FLORAL PARTS-CLOVES
(For adoption at Step 8)

1 SCOPE
This Standard applies to plant products in their dried or dehydrated form as spices, defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes the product for industrial processing.

2 DESCRIPTION
2.1 Product definition
Dried cloves is a product obtained from the dried floral part of the plant (clove nail) as described in Table 1.

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried cloves</td>
<td>Syzygium aromaticum (L.), Merrill &amp; Perry</td>
</tr>
</tbody>
</table>

2.2 Styles
Dried cloves may be:
- Whole
- Ground/powdered (without any added matter)

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition
Product as described in Section 2 above shall conform to the requirements contained in Annexes I and II.

3.2 Quality factors

3.2.1 Odour, flavour and colour
The product shall have a characteristic odour, flavour and colour, which can vary depending on geo-climatic factors/conditions, and shall be free from any foreign odour, flavour, and colour especially from rancidity and mustiness.

3.2.2 Chemical and physical characteristics
The generic product shall comply with the requirements specified in Annex I (Chemical Characteristics - Table 2) and Annex II (Physical Characteristics-Table 3). The defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.

3.2.3 Classification (Optional)
If traded as classified, the provision in Annexes 1 and II applies as minimum requirements.

4 FOOD ADDITIVES
Anticaking agents listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in powdered form of the foods conforming to this standard.

5 CONTAMINANTS
5.1 The products covered by this Standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995) and any other relevant Codex texts.
5.2 The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

6 HYGIENE
6.1 It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (CAC/RCP 1-1969), the Code of Hygienic Practice for low moisture foods (CXC 75-2015) Annex III on Spices and dried culinary herbs and other relevant Codex texts.
6.2 The products should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CXG 21-1997).

7 WEIGHTS AND MEASURES
Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product.

8 LABELLING
8.1 The products covered by the provisions of this Standard shall be labelled in accordance with the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985). In addition, the following specific provisions apply:

8.2 Name of the Product
8.2.1 The common name of the product shall be as described in Section 2.1
8.2.2 The name of the product may include an indication of the style as described in Section 2.2.
8.2.3 Trade name, variety or cultivar may be listed on the label.

8.3 Country of origin and country of harvest
8.3.1 Country of origin shall be declared.
8.3.2 Country of harvest (optional)
8.3.3 Region of harvest and year of harvest (optional)

8.4 Labelling of non-retail containers
Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

9 METHODS OF ANALYSIS AND SAMPLING
9.1 Methods of Analysis
As described in Annex III, Table 4

9.2 Sampling Plan
To be developed.
**Annex I**

**Table 2** Chemical requirements of dried floral parts-cloves

<table>
<thead>
<tr>
<th>Product</th>
<th>Style</th>
<th>Total Ash % w/w (max) on dry basis</th>
<th>Acid Insoluble Ash % w/w (max) on dry basis</th>
<th>Moisture Content % w/w (max)</th>
<th>Volatile Oils ml/100g (min) on dry basis</th>
<th>Crude fibre % w/w (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried clove</td>
<td>Whole</td>
<td>7</td>
<td>0.5</td>
<td>12</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Ground</td>
<td>7</td>
<td>0.5</td>
<td>10</td>
<td>14</td>
<td>13</td>
</tr>
</tbody>
</table>

**Annex II**

**Table 3** Physical requirements of dried floral parts-cloves

<table>
<thead>
<tr>
<th>Product</th>
<th>Style</th>
<th>Mammalian or/and other excreta* (w/w)/ mg/Kg, (max)</th>
<th>Live Insects Count/100 g (max)</th>
<th>Mold Visible % w/w (max)</th>
<th>Insect defiled/Infested % w/w (max)</th>
<th>Extraneous matter¹ % w/w (max)</th>
<th>Foreign matter² % w/w (max)</th>
<th>Defects (Headless³/Mother⁴/Khoker⁵) % w/w (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried clove</td>
<td>Whole</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5/6/5</td>
</tr>
<tr>
<td></td>
<td>Ground</td>
<td>N/A</td>
<td>0</td>
<td>N/A</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1 Extraneous matter: Vegetative matter associated with the plant from which the product originate but not accepted as a part of the final product2Foreign matter: Any visible/detectable objectionable foreign matter or material not usually associated with the natural component of the spice plant such as sticks, stones, burlap bagging, metal, etc.

3 Headless Clove: Clove consisting of only the receptacle and sepals and which has lost the dome-shaped head.

4 Mother Clove: Fruit of the clove tree (Syzygium aromaticum) in the form of an ovoid brown berry surmounted by four incurved sepals.

5 Khoker Clove: Clove having undergone fermentation as a result of incomplete drying, as evidenced by its pale brown colour, whitish mealy appearance and often wrinkled surface.

N/A Not Applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero.

*Excreta from other animals such as reptiles and birds
### Annex III

#### Table 4. Methods of Analysis

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Principle</th>
<th>Type</th>
<th>Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture</td>
<td>ASTA 2.0</td>
<td>Distillation</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Volatile oil</td>
<td>ISO 6571</td>
<td>Distillation\ Volumetry</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Total ash (dry basis)</td>
<td>ISO 928</td>
<td>Gravimetry</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Acid Insoluble Ash</td>
<td>ISO 930</td>
<td>Gravimetry</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Extraneous matter</td>
<td>ISO 927</td>
<td>Visual\ Gravimetry</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Foreign matter</td>
<td>ISO 927</td>
<td>Visual\ Gravimetry</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Insect damage</td>
<td>ISO 927 [Method V-8 Spices, Condiments, Flavours and Crude Drugs]</td>
<td>Visual Examination\ Visual Examination</td>
<td>IV</td>
<td>IV</td>
</tr>
<tr>
<td>Insects/Excreta/Insect fragments</td>
<td>ISO 927</td>
<td>Visual Examination</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Crude fibre</td>
<td>ISO 5498</td>
<td>Gravimetry</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Mould visible</td>
<td>Method V-8 Spices, Condiments, Flavours and Crude Drugs</td>
<td>Visual Examination</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Live insect</td>
<td>ISO 927</td>
<td>Visual Examination</td>
<td>IV</td>
<td></td>
</tr>
<tr>
<td>Mammalian or/and Other excreta</td>
<td>Method V-8 Spices, Condiments, Flavours and Crude Drugs</td>
<td>Visual Examination</td>
<td>IV</td>
<td></td>
</tr>
</tbody>
</table>

1 According to the definition of “types of method of analysis” as per Codex Procedural Manual Section II

*Latest edition or version of the approved method should be used*
APPENDIX V

DRAFT STANDARD FOR DRIED BASIL
(For adoption at Step 8)

1 SCOPE
This Standard applies to basil leaves in their dried form as culinary herbs defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes products for industrial processing.

2 DESCRIPTION
2.1 Product definition
Dried basil is the product prepared from leaves of *Ocimum* spp. of the Lamiaceae family (Table 1), dried and processed in an appropriate manner. Undergoing operations such as cleaning, drying, rubbing, milling and sifting are sold in forms as indicated in Section 2.2 Styles.

<table>
<thead>
<tr>
<th>Common name</th>
<th>Trade name</th>
<th>Scientific name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweet Basil</td>
<td><em>Ocimum basilicum</em> L.</td>
<td></td>
</tr>
<tr>
<td>Bush Basil</td>
<td><em>Ocimum minimum</em> L.</td>
<td></td>
</tr>
<tr>
<td>American Basil</td>
<td><em>Ocimum americanum</em> L.</td>
<td></td>
</tr>
<tr>
<td>Shrubby Basil</td>
<td><em>Ocimum gratissimum</em> L.</td>
<td></td>
</tr>
<tr>
<td>Camphor Basil</td>
<td><em>Ocimum kilimandscharicum</em> Gürke</td>
<td></td>
</tr>
<tr>
<td>Sacred Basil / Holy Basil</td>
<td><em>Ocimum tenuiflorum</em> L. / <em>Ocimum sanctum</em> L.</td>
<td></td>
</tr>
</tbody>
</table>

2.2 Styles
2.2.1 Dried basil may be:
- Whole/intact
- Crushed/rubbed/flaked
- Ground/powdered
- Of other styles distinct from those above, provided they are labelled accordingly.

2.2.2 The particle size of ground/powdered styles is determined by contractual agreement between buyer and seller.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS
3.1 Composition
Dried basil as described in Section 2 above shall conform to the requirements in Annexes I and II.

3.2 Quality factors
3.2.1 Odour, flavour and colour
Dried basil shall have a characteristic odour and flavour, which may vary depending on geo-climatic factors/conditions. Dried basil shall be free from any foreign odour or flavour and especially from mustiness odour. The typical colour of basil may change depending on post-harvest treatment.

3.2.2 Chemical and physical characteristics
The generic product shall comply with the requirements specified in Annex I (Chemical Characteristics) and Annex II (Physical Characteristics). The defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.
4 FOOD ADDITIVES
Anticaking agents listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in powdered form of the foods conforming to this Standard.

5 CONTAMINANTS
5.1 The products covered by this Standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995), the Code of Practice for Weed Control to Prevent and Reduce Pyrrolizidine Alkaloid Contamination in Food and Feed (CXC 74-2014) and other relevant Codex texts.
5.2 The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

6 HYGIENE
6.1 It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (CXC 1-1969), the Code of Hygienic Practice for Low-Moisture Foods (CXC 75-2015) Annex III Spices and Culinary Herbs; Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (CXC 78 - 2017), and other relevant Codex texts.
6.2 The products should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (CXG 21-1997).

7 WEIGHTS AND MEASURES
Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product.

8 LABELLING
8.1 The products covered by the provisions of this Standard shall be labelled in accordance with the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985). In particular, the following specific provisions apply.
8.2 Name of the product
8.2.1 The common name of the product shall be as described in Section 2.1.
8.2.2 The common name may be used if the product is a blend of the different species listed in Table 1. If a trade name is used, then the product shall be a minimum of 80% of the species listed for that trade name.
8.2.3 The name of the product may include an indication of the trade name and varietal type described in Table 1 and style as described in Section 2.2.
8.3 Country of origin and country of harvest
8.3.1 Country of origin shall be declared.
8.3.2 Country of harvest (optional)
8.3.3 Region of harvest and Year of harvest (optional)
8.4 Labelling of non-retail containers
Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.
9. METHODS OF ANALYSIS AND SAMPLING

9.1 Methods of Analysis
As described in Annex III, Table 4.

9.2 SAMPLING PLAN
To be developed.
### Table 2. Chemical Characteristics of Dried Basil

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Style</th>
<th>Moisture Content (Max. %)</th>
<th>Total ash on dry basis %w/w max</th>
<th>Acid-insoluble ash on dry basis % w/w max</th>
<th>Volatile Oils on dry basis mL/100g (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basil</td>
<td>Whole/ intact</td>
<td>12</td>
<td>16</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Crushed/rubbed/ flaked</td>
<td>12</td>
<td>16</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>Ground/ powdered</td>
<td>10</td>
<td>16</td>
<td>2</td>
<td>0.1</td>
</tr>
</tbody>
</table>

### Table 3. Physical Characteristics of Dried Basil

<table>
<thead>
<tr>
<th>Common name</th>
<th>Style</th>
<th>Extraneous matter 1 % w/w max</th>
<th>Foreign matter 2 % w/w max</th>
<th>Dead whole insects, count /100g max</th>
<th>Visible Mold damage %w/w max</th>
<th>Mammalian excreta mg/Kg max</th>
<th>Insect damaged leaves, % w/w, max</th>
<th>Other Excreta 3 mg/Kg max</th>
<th>Live insects Count/100 g (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basil</td>
<td>Whole/ intact</td>
<td>0.5</td>
<td>0.1</td>
<td>2.0</td>
<td>1.0</td>
<td>2.2</td>
<td>1.0</td>
<td>N/A</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Crushed/ Rubbed/ Flaked</td>
<td>1.0</td>
<td>0.1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Ground/ powdered</td>
<td>0</td>
<td>0.1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
</tr>
</tbody>
</table>

1 Vegetable matter associated with the plant from which the product originates - but is not accepted as part of the final product.
2 Any visible objectionable foreign detectable matter or material not usually associated with the natural components of the spice plant; such as sticks, stones, burlap bagging, metal etc.
3Excreta from other animals such as reptiles and birds.

N/A: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero/
### Table 4. Methods of Analysis

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Method</th>
<th>Principle</th>
<th>Type ¹²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture</td>
<td>ISO 939</td>
<td>Distillation</td>
<td>I</td>
</tr>
<tr>
<td>Total Ash</td>
<td>ISO 928</td>
<td>Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Acid Insoluble Ash</td>
<td>ISO 928 and ISO 930</td>
<td>Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Volatile Oil</td>
<td>ISO 6571</td>
<td>Distillation Volumetry</td>
<td>I</td>
</tr>
<tr>
<td>Extraneous Matter</td>
<td>ISO 927</td>
<td>Visual Examination followed by Volumetry</td>
<td>I</td>
</tr>
<tr>
<td>Foreign Matter</td>
<td>ISO 927</td>
<td>Visual Examination followed by Volumetry</td>
<td>I</td>
</tr>
<tr>
<td>Insect Damage</td>
<td>Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5)</td>
<td>Visual Examination</td>
<td>IV</td>
</tr>
<tr>
<td>Insects/Excreta/Isect Fragments</td>
<td>Method appropriate for particular spice from AOAC Chapter 16, subchapter 14</td>
<td>Visual Examination</td>
<td>IV</td>
</tr>
<tr>
<td>Mould damage</td>
<td>Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5)</td>
<td>Visual examination (for whole)</td>
<td>IV</td>
</tr>
<tr>
<td>Mammalian Excreta, And Other Excreta</td>
<td>Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, USFDA, Technical Bulletin V.39 B) (For whole)</td>
<td>Visual Examination</td>
<td>I</td>
</tr>
</tbody>
</table>

¹ Latest edition or version of the approved method should be used.
² According to the definition of “types of method of analysis” as per Codex Procedural Manual Section II.
1. SCOPE
This Standard applies to dried seeds, in their dried or dehydrated form as spices, as defined in Section 2.1 below, offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes dried seeds for industrial processing.

2. DESCRIPTION
2.1. Product definitions
2.1.1 Dried nutmeg is the “seed” of Myristica fragrans of the Myristicaceae family (Table 1), having reached appropriate degree of development, harvested and post-harvest treated properly, by undergoing operations such as stripping, drying, sorting, cracking, grading, and/or grinding before the final packaging and, and are sold in styles as described in 2.2.

Table 1. Dried Seeds Covered by this Standard

<table>
<thead>
<tr>
<th>Common name</th>
<th>Scientific name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutmeg</td>
<td>Myristica fragrans Houtt.</td>
</tr>
</tbody>
</table>

2.1.2 Nutmeg has variety of shapes from ovoid to broadly ovoid, with variety of sizes ranging from 2 – 3 cm long and from 1.5 – 2.5 cm wide. Nutmeg kernels have a slightly wrinkled like surface.

2.2. Styles
Dried nutmeg may be offered in one of the following styles:
2.2.1. Whole inshell;
2.2.2. Whole shelled;
2.2.3. Broken seed; and
2.2.4. Ground/powdered seed.

2.3. Sizing (Optional)
Whole nutmegs (inshell and shelled) may be sized by count per weight, weight, diameter, or in accordance with pre-existing trade practice. When sized, the methods used should be labelled on the package.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS
3.1. Compositions
Product as described in Section 2 above shall conform to the requirements specified in Annexes I and II.

3.2. Quality factors
3.2.1. Odour, flavour and colour
The products shall have a characteristic odour, flavour, and colour, which may vary depending on geo-climatic factors/conditions, and shall be free from any foreign odour, flavour and colour especially from rancidity and mustiness.

3.2.2. Chemical and physical characteristics
Dried nutmeg shall comply with the requirements specified in Annex I (chemical characteristics) and Annex II (physical characteristics). The defects allowed must not affect the general requirements of the product as regards to its quality, keeping quality and presentation in the package.
3.2.3. Classification (optional)
When dried nutmeg are traded as classified, the chemical and physical characteristics in Annexes I and II apply as the minimum requirements.

4. FOOD ADDITIVES
Anticaking agents listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) are acceptable for use in the powdered form of the foods conforming to this Standard.

5. CONTAMINANTS
5.1. The products covered by this Standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995), Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (CXS 78-2017) and other relevant Codex texts.

5.2. The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

6. HYGIENE
6.1. It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (CXC 1-1969), the Code of Hygienic Practice for Low Moisture Foods (CXC 75-2015), Annex III Spices and dried culinary herbs and other relevant Codex texts.

6.2. The products should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods (CXG 21-1997).

7. WEIGHTS AND MEASURES
Containers shall be as full as practicable without impairment of quality and shall be consistent with a proper declaration of contents for the product.

8. LABELLING
8.1. The products covered by this Standard shall be labelled in accordance with the General Standard for the Labelling of Prepackaged Foods (CXS 1-1985). In particular, the following specific provisions apply:

8.2. Name of the product
8.2.1. The name of the product shall be as described in Section 2.1.
8.2.2. The name of the product may include an indication of the style as described in Section 2.2.

8.3. Country of origin and country of harvest
8.3.1. Country of origin shall be declared.
8.3.2. Country of harvest (optional)
8.3.3. Region of harvest and Year of harvest (optional)

8.4. Commercial identification
8.4.1 Size (optional)

8.5. Labelling of non-retail containers
Information for non-retail containers shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer, packer, distributor or importer, as well as storage instructions, shall appear on the container. However, lot identification, and the name and address of the manufacturer, packer, distributor or importer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

9. METHODS OF ANALYSIS AND SAMPLING
9.1. Methods of analysis
As described in Annex III, Table 4.

9.2. Sampling plan
To be developed.
TABLE 2. Chemical characteristics for Whole, Broken and Ground/Powdered Nutmeg

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whole</td>
</tr>
<tr>
<td>Moisture Content, % mass fraction (max)</td>
<td>10.0</td>
</tr>
<tr>
<td>Total ash, % mass fraction (dry basis), max</td>
<td>3.0</td>
</tr>
<tr>
<td>Acid Insoluble ash, % mass fraction (dry basis) max</td>
<td>0.5</td>
</tr>
<tr>
<td>Water- insoluble ash, % mass fraction (dry basis) max</td>
<td>1.5</td>
</tr>
<tr>
<td>Volatile Oils content, (mL/100g) minimum</td>
<td>[6.5][3.5-11]</td>
</tr>
<tr>
<td>Calcium as Ca-Oxide, % mass fraction (dry basis), max</td>
<td>0.35</td>
</tr>
</tbody>
</table>
## ANNEX II

**Table 3. Physical characteristics for Nutmeg**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>IN SHELL (With shell)</th>
<th>SHELLED SEED (Without shell)</th>
<th>Ground/Powdered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Whole</td>
<td>Whole</td>
<td>Broken</td>
</tr>
<tr>
<td>Extraneous matter(^1), % w/w (max)</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Foreign matter(^2), % w/w (max)</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Mould visible(^3), insect defiled/infested % w/w (max))</td>
<td>0.5 [10] [10] [5]</td>
<td>[4][N/A]</td>
<td>N/A</td>
</tr>
<tr>
<td>Dead whole insects, count/100g (max)</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Insect fragments, count/10g (max)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Rodent contamination (hair), count/10g (max)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Live insect, by count/100g (max)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mammalian and or other excreta, mg/kg (max)</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Piece of mace, % w/w (max)</td>
<td>N/A</td>
<td>N/A</td>
<td>0.5</td>
</tr>
</tbody>
</table>

\(^1\) Vegetative matter associated with the plant from which the product originates - but is not accepted as part of the final product.

\(^2\) Any visible objectionable foreign detectable matter or material not usually associated with the natural components of the spice plant; such as sticks, stones, burlap bagging, metal etc.

\(^3\) Seen by naked eyes.

N/A: Not applicable, means that this form of the above product has not been evaluated for this provision, and currently we do not have values. N/A does not refer to zero.
Annex III

Table 4. Method of Analysis

<table>
<thead>
<tr>
<th>Provision</th>
<th>Method</th>
<th>Principle</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture content</td>
<td>ISO 939</td>
<td>Distillation</td>
<td>I</td>
</tr>
<tr>
<td>Total ash</td>
<td>ISO 928</td>
<td>Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Acid-insoluble ash</td>
<td>ISO 930</td>
<td>Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Water-insoluble ash</td>
<td>ISO 929</td>
<td>Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Volatile oils content</td>
<td>ISO 6571</td>
<td>Distillation</td>
<td>I</td>
</tr>
<tr>
<td>Calcium content expressed as CaO</td>
<td>ISO 1003</td>
<td>Titration</td>
<td>I</td>
</tr>
<tr>
<td>Extraneous matter</td>
<td>ISO 927</td>
<td>Visual examination/ Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Foreign matter</td>
<td>ISO 927</td>
<td>Visual examination/ Gravimetry</td>
<td>I</td>
</tr>
<tr>
<td>Mould visible</td>
<td>ISO 927</td>
<td>Visual examination</td>
<td>IV</td>
</tr>
<tr>
<td>Dead insect, insect fragments, rodent contamination</td>
<td>ISO 927</td>
<td>Visual examination</td>
<td>IV</td>
</tr>
<tr>
<td>Live insect</td>
<td>ISO 927</td>
<td>Visual examination</td>
<td>IV</td>
</tr>
<tr>
<td>Mammalian and or other excreta</td>
<td>Macroanalytical Procedure Manual (MPM) USFDA technical bulletin V.41</td>
<td>Visual examination</td>
<td>IV</td>
</tr>
<tr>
<td>Piece of mace</td>
<td>ISO 927</td>
<td>Visual examination</td>
<td>IV</td>
</tr>
</tbody>
</table>

*Latest edition or version of the approved methods should be used*
INTRODUCTION

Small Cardamom, *Elettaria cardamomum* Maton, often referred as the "Queen of Spices", belongs to the family *Zingiberaceae*. It is popular for its very pleasant aroma and taste.

Apart from small cardamom there is one more variety called large cardamom, also known as black cardamom from the species *Amomum subulatum*. Cardamoms are recognized by their small seed pods: triangular in cross-section and spindle-shaped, with a thin, papery outer shell and small, black seeds. Small cardamom pods are small with light green colour whereas large cadamom pods are larger with dark brown colour. Both genera are native to the Indian subcontinent, Bhutan, Indonesia, and Nepal.

1. Purpose and scope of the standard

The scope of this work is to establish worldwide standard for small cardamom (*Elettaria cardamomum* Maton) in whole, seed and ground forms. The objective of this standard is to consider the identity and quality characteristics of small cardamom as whole capsule, seed and ground form during international trade.

2. Relevance and timeliness

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

Cardamom is the world’s third-most expensive spice, surpassed in price per weight only by saffron and vanilla. Economics of this valuable spice from different aspects such as marketing, employment, household’s income, globalization and export, is important.

ISO has two specification standards for small cardamom.


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 seed of cardamom and including reference 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 of small 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 *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

There are different types of cardamom varieties. Developing a codex standard for small 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

By the early 21st century, Guatemala had become the largest producer of cardamom in the world, with an average annual yield between 25,000 and 29,000 tonnes. India, formerly the largest producer, since 2000 has been the second worldwide, generating around 15,000 tonnes annually.

Cardamom is one of the most important export products and plays significant role in income and employment of cardamom producers. Guatemala, India, Sri Lanka, Nepal, Indonesia and Tanzania are among main countries dealing with cardamom production.

Major importer countries of cardamom are Saudi Arabia, United Arab Emirates, Viet Nam, India, Bangladesh, Nepal, Jordan, Kuwait, Singapore, and Syrian Arab Republic.

Table 1: Top producing countries of Cardamom (Year 2016)

<table>
<thead>
<tr>
<th>Country</th>
<th>Country’s Rank/Share In Production (%)</th>
<th>Production Volume (Ton)</th>
<th>Growth in Production (1 Year)</th>
<th>Country’s Rank/Share In Export (%)</th>
<th>Export Value In 2016 (US $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>31.11</td>
<td>38,000</td>
<td>+72.7</td>
<td>8.67 (3)</td>
<td>24,022,803</td>
</tr>
<tr>
<td>Guatemala</td>
<td>29.04</td>
<td>35,475</td>
<td>+2.8</td>
<td>55.75 (1)</td>
<td>154,488,339</td>
</tr>
<tr>
<td>Indonesia</td>
<td>25.41</td>
<td>31,039</td>
<td>-9.5</td>
<td>2.59 (6)</td>
<td>7,168,770</td>
</tr>
<tr>
<td>Nepal</td>
<td>5.27</td>
<td>6,439</td>
<td>+24.6</td>
<td>12.38 (2)</td>
<td>34,317,328</td>
</tr>
<tr>
<td>Laos</td>
<td>2.55</td>
<td>3,115</td>
<td>+1.2</td>
<td>0.04 (34)</td>
<td>102,128</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2.13</td>
<td>2,596</td>
<td>+24.2</td>
<td>0.18 (18)</td>
<td>495,144</td>
</tr>
<tr>
<td>Grenada</td>
<td>2.08</td>
<td>2,540</td>
<td>-18.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tanzania</td>
<td>0.63</td>
<td>764</td>
<td>-4.7</td>
<td>0.07 (27)</td>
<td>196,293</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.46</td>
<td>563</td>
<td>+2.0</td>
<td>2.12 (7)</td>
<td>5,883,903</td>
</tr>
<tr>
<td>Honduras</td>
<td>0.39</td>
<td>482</td>
<td>+0.6</td>
<td>1.08 (9)</td>
<td>2,995,598</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>0.32</td>
<td>392</td>
<td>+7.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Saint Vincent and the Grenadines</td>
<td>0.17</td>
<td>206</td>
<td>+7.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>0.13</td>
<td>161</td>
<td>+5.2</td>
<td>0.02 (39)</td>
<td>67,741</td>
</tr>
<tr>
<td>Malawi</td>
<td>0.07</td>
<td>84</td>
<td>-6.7</td>
<td>0.00 (84)</td>
<td>906</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>0.07</td>
<td>83</td>
<td>-3.5</td>
<td>0.02 (44)</td>
<td>46,737</td>
</tr>
</tbody>
</table>

Source: Tridge – Global Trade Platform
Table 2: Trade between Countries- Cardamoms, neither crushed nor ground (top 10 countries)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>539,361</td>
<td>57,776</td>
<td>57,211</td>
<td>9,428</td>
<td>12</td>
<td>0</td>
<td>45</td>
<td>100</td>
</tr>
<tr>
<td>Guatemala</td>
<td>365,799</td>
<td>365,564</td>
<td>35,695</td>
<td>10,248</td>
<td>10</td>
<td>-3</td>
<td>60</td>
<td>67.8</td>
</tr>
<tr>
<td>India</td>
<td>73,980</td>
<td>35,334</td>
<td>4,698</td>
<td>15,747</td>
<td>20</td>
<td>14</td>
<td>14</td>
<td>13.7</td>
</tr>
<tr>
<td>Nepal</td>
<td>43,495</td>
<td>32,970</td>
<td>4,690</td>
<td>9,274</td>
<td>19</td>
<td>15</td>
<td>20</td>
<td>8.1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>10,978</td>
<td>10,967</td>
<td>6,892</td>
<td>1,593</td>
<td>-4</td>
<td>-6</td>
<td>80</td>
<td>2</td>
</tr>
<tr>
<td>Singapore</td>
<td>10,854</td>
<td>-1,051</td>
<td>961</td>
<td>11,294</td>
<td>-4</td>
<td>-14</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>5,552</td>
<td>3,360</td>
<td>818</td>
<td>6,787</td>
<td>205</td>
<td>285</td>
<td>-3</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>5,105</td>
<td>-1,137</td>
<td>481</td>
<td>10,613</td>
<td>9</td>
<td>3</td>
<td>45</td>
<td>0.9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3,410</td>
<td>-5,326</td>
<td>265</td>
<td>12,868</td>
<td>18</td>
<td>24</td>
<td>10</td>
<td>0.6</td>
</tr>
<tr>
<td>Bhutan</td>
<td>3,410</td>
<td>3,408</td>
<td>494</td>
<td>6,903</td>
<td>114</td>
<td>142</td>
<td>589</td>
<td>0.6</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>2,926</td>
<td>-93,044</td>
<td>487</td>
<td>6,008</td>
<td>14</td>
<td>-2</td>
<td>-16</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Sources: ITC calculations based on UN COMTRADE statistics. Unit: US Dollar thousand

Table 3: Trade between Countries - Cardamoms, neither crushed nor ground

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>481,585</td>
<td>57,776</td>
<td>47,889*</td>
<td>-</td>
<td>8</td>
<td>-2</td>
<td>41</td>
<td>100</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>121,864</td>
<td>-120,107</td>
<td>8,135</td>
<td>14,980</td>
<td>-3</td>
<td>-9</td>
<td>37</td>
<td>25.3</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>95,970</td>
<td>-93,044</td>
<td>9,226</td>
<td>10,402</td>
<td>8</td>
<td>-3</td>
<td>115</td>
<td>19.9</td>
</tr>
<tr>
<td>India</td>
<td>38,646</td>
<td>35,334</td>
<td>4,369</td>
<td>8,846</td>
<td>27</td>
<td>18</td>
<td>-13</td>
<td>8</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>35,417</td>
<td>-35,410</td>
<td>3,737</td>
<td>9,477</td>
<td>28</td>
<td>13</td>
<td>95</td>
<td>7.4</td>
</tr>
<tr>
<td>Kuwait</td>
<td>14,914</td>
<td>-14,479</td>
<td>1,084</td>
<td>13,758</td>
<td>10</td>
<td>6</td>
<td>64</td>
<td>3.1</td>
</tr>
</tbody>
</table>
### Table 3: Trade between Countries - Cardamoms, neither crushed nor ground (continued)

<table>
<thead>
<tr>
<th>Country</th>
<th>Export</th>
<th>Import</th>
<th>Exports to</th>
<th>Imports from</th>
<th>Balance</th>
<th>Balance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>14,005</td>
<td>13,993</td>
<td>0</td>
<td>22</td>
<td>2</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>Jordan</td>
<td>12,536</td>
<td>10,398</td>
<td>1,348</td>
<td>9,300</td>
<td>17</td>
<td>-5</td>
<td>44</td>
</tr>
<tr>
<td>Singapore</td>
<td>11,905</td>
<td>1,051</td>
<td>1,069</td>
<td>11,137</td>
<td>-1</td>
<td>-14</td>
<td>109</td>
</tr>
<tr>
<td>United States of America</td>
<td>10,655</td>
<td>-9,780</td>
<td>856</td>
<td>12,447</td>
<td>3</td>
<td>-1</td>
<td>17</td>
</tr>
<tr>
<td>Nepal</td>
<td>10,525</td>
<td>32,970</td>
<td>1,481</td>
<td>7,107</td>
<td>76</td>
<td>48</td>
<td>17</td>
</tr>
<tr>
<td>Egypt</td>
<td>10,205</td>
<td>-10,205</td>
<td>874</td>
<td>11,676</td>
<td>25</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>9,949</td>
<td>-9,300</td>
<td>6,398</td>
<td>1,555</td>
<td>-5</td>
<td>-7</td>
<td>70</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>8,736</td>
<td>-5,326</td>
<td>704</td>
<td>12,409</td>
<td>4</td>
<td>-1</td>
<td>38</td>
</tr>
<tr>
<td>Iraq</td>
<td>7,622</td>
<td>-7,622</td>
<td>703</td>
<td>10,842</td>
<td>0</td>
<td>-13</td>
<td>26</td>
</tr>
<tr>
<td>Syrian Arab Republic</td>
<td>6,935</td>
<td>-6,932</td>
<td>909</td>
<td>7,629</td>
<td>0</td>
<td>-17</td>
<td>26</td>
</tr>
<tr>
<td>Germany</td>
<td>6,254</td>
<td>-4,890</td>
<td>553</td>
<td>11,309</td>
<td>10</td>
<td>-3</td>
<td>46</td>
</tr>
<tr>
<td>Netherlands</td>
<td>6,242</td>
<td>-1,137</td>
<td>679</td>
<td>9,193</td>
<td>19</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>Japan</td>
<td>5,457</td>
<td>-5,457</td>
<td>382</td>
<td>14,285</td>
<td>1</td>
<td>-1</td>
<td>62</td>
</tr>
<tr>
<td>Qatar</td>
<td>5,414</td>
<td>-5,414</td>
<td>458</td>
<td>11,821</td>
<td>22</td>
<td>12</td>
<td>103</td>
</tr>
</tbody>
</table>

**Table 3: Trade between Countries - Cardamoms, neither crushed nor ground (continued)**

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

1. Small cardamom is one of the most expensive spice in the world after saffron and vanilla. Trade of small cardamom plays a crucial role in the economy of export as well as importing countries.
2. Import and export take place between many countries. So, establishing international standard criteria based on codex standard is necessary for International trade and consumer support.

Cardamom is traded according to purity, quality specification and forms.

3. There are so many standards available nationally and internationally for small cardamom.
   - IS 1987:1984 -Cardamom (capsules and seeds) (Indian standard)
   - European Spice Association Quality Minima Document
   - ASTA cleanliness specifications for spices, seeds and herbs.

This would reduce possible barriers to trade and would provide a comprehensive framework setting out the minimum internationally acceptable requirements for Cardamom.
This new work will provide a recommendation, which countries could use to develop their own quality and grading standards for Cardamom and, when applied internationally, may assist in providing a harmonized approach.

Lack of harmonized and internationally accepted standard for small cardamom will lead to malpractices in the trade. In order to facilitate a fair trade, an internationally accepted codex standard is very essential.

Due to importance the quality control of small cardamom specifications, it is necessary to develop an international harmonized standard.

(c) International or regional market potential:

The quantity imported of cardamom in 2017 has been reported 47,889 tones and Annual growths in value of imported between 2016 and 2017 is 41%, which shows international demand for cardamom has been grown (ITC, Trade Map 2017). The major exporters are Guatemala, India, Indonesia, Sri Lanka, Nepal, and Tanzania. According to ITC data, the international trade accounted to more than 47,000 tones for about 481,585 US $ thousands in 2017.

Table 4: Exported value of cardamom, neither crushed nor ground (values in USD thousands)

<table>
<thead>
<tr>
<th>Exporters</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>in 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>317,143</td>
<td>399,539</td>
<td>447,605</td>
<td>392,219</td>
<td>539,339</td>
</tr>
<tr>
<td>Guatemala</td>
<td>217,208</td>
<td>240,319</td>
<td>242,474</td>
<td>229,008</td>
<td>365,799</td>
</tr>
<tr>
<td>India</td>
<td>32,142</td>
<td>58,007</td>
<td>70,405</td>
<td>65,157</td>
<td>73,980</td>
</tr>
<tr>
<td>Nepal</td>
<td>19,190</td>
<td>32,786</td>
<td>42,788</td>
<td>36,285</td>
<td>43,495</td>
</tr>
<tr>
<td>Indonesia</td>
<td>10,603</td>
<td>10,036</td>
<td>7,773</td>
<td>6,112</td>
<td>10,978</td>
</tr>
<tr>
<td>Singapore</td>
<td>9,531</td>
<td>10,066</td>
<td>11,894</td>
<td>5,425</td>
<td>10,854</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>114</td>
<td>194</td>
<td>954</td>
<td>5,699</td>
<td>5,552</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3,771</td>
<td>2,709</td>
<td>2,513</td>
<td>3,524</td>
<td>5,105</td>
</tr>
<tr>
<td>Bhutan</td>
<td>68</td>
<td>609</td>
<td>12,423</td>
<td>495</td>
<td>3,410</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,726</td>
<td>2,228</td>
<td>2,317</td>
<td>3,114</td>
<td>3,410</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>11,609</td>
<td>21,005</td>
<td>33,349</td>
<td>17,203</td>
<td>2,910</td>
</tr>
<tr>
<td>Jordan</td>
<td>750</td>
<td>349</td>
<td>263</td>
<td>718</td>
<td>2,138</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1,155</td>
<td>1,866</td>
<td>3,558</td>
<td>2,664</td>
<td>1,757</td>
</tr>
<tr>
<td>Honduras</td>
<td>228</td>
<td>820</td>
<td>1,189</td>
<td>2,317</td>
<td>1,483</td>
</tr>
<tr>
<td>Guyana</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,391</td>
</tr>
<tr>
<td>Germany</td>
<td>1,278</td>
<td>1,013</td>
<td>1,058</td>
<td>1,146</td>
<td>1,364</td>
</tr>
<tr>
<td>United States of America</td>
<td>405</td>
<td>392</td>
<td>536</td>
<td>624</td>
<td>875</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>841</td>
<td>250</td>
<td>200</td>
<td>69</td>
<td>650</td>
</tr>
<tr>
<td>France</td>
<td>467</td>
<td>438</td>
<td>289</td>
<td>382</td>
<td>495</td>
</tr>
<tr>
<td>Kuwait</td>
<td>195</td>
<td>219</td>
<td>57</td>
<td>432</td>
<td>435</td>
</tr>
<tr>
<td>Costa Rica</td>
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<td>4</td>
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</tr>
<tr>
<td>Canada</td>
<td>156</td>
<td>134</td>
<td>295</td>
<td>284</td>
<td>307</td>
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<tr>
<td>Oman</td>
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<td>0</td>
<td>0</td>
<td>7</td>
<td>296</td>
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<tr>
<td>Country</td>
<td>201</td>
<td>145</td>
<td>284</td>
<td>281</td>
<td>254</td>
</tr>
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<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Sweden</td>
<td>201</td>
<td>145</td>
<td>284</td>
<td>281</td>
<td>254</td>
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<tr>
<td>Malaysia</td>
<td>140</td>
<td>78</td>
<td>178</td>
<td>1,732</td>
<td>249</td>
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<td>Spain</td>
<td>181</td>
<td>99</td>
<td>165</td>
<td>158</td>
<td>239</td>
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<td>Austria</td>
<td>14</td>
<td>39</td>
<td>47</td>
<td>218</td>
<td>221</td>
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<td>Myanmar</td>
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<td>13,132</td>
<td>9,913</td>
<td>7,429</td>
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<tr>
<td>Italy</td>
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<td>88</td>
<td>76</td>
<td>79</td>
<td>133</td>
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<tr>
<td>Pitcairn</td>
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<td></td>
<td></td>
<td></td>
<td>121</td>
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<tr>
<td>Guam</td>
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<td>1</td>
<td>102</td>
</tr>
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</table>
Table 5: Exported Quantity of cardamom, neither crushed nor ground

<table>
<thead>
<tr>
<th>Exporters</th>
<th>Exported quantity, Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>World</td>
<td>55,976</td>
</tr>
<tr>
<td>Guatemala</td>
<td>38,812</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6,698</td>
</tr>
<tr>
<td>India</td>
<td>2,621</td>
</tr>
<tr>
<td>Nepal</td>
<td>2,173</td>
</tr>
<tr>
<td>Singapore</td>
<td>1,487</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>12</td>
</tr>
<tr>
<td>Bhutan</td>
<td>5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>469</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>2,075</td>
</tr>
<tr>
<td>Honduras</td>
<td>184</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>117</td>
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<tr>
<td>Saudi Arabia</td>
<td>110</td>
</tr>
<tr>
<td>Jordan</td>
<td>204</td>
</tr>
<tr>
<td>Myanmar</td>
<td>227</td>
</tr>
<tr>
<td>Germany</td>
<td>134</td>
</tr>
<tr>
<td>Guyana</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 6: Imported value of cardamom, neither crushed nor ground (Top importers)

<table>
<thead>
<tr>
<th>Importers</th>
<th>Imported value (in USD thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>World</td>
<td>314,220</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>126,660</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>53,409</td>
</tr>
<tr>
<td>India</td>
<td>13,589</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>16,377</td>
</tr>
<tr>
<td>Kuwait</td>
<td>9,181</td>
</tr>
<tr>
<td>Pakistan</td>
<td>6,309</td>
</tr>
<tr>
<td>Jordan</td>
<td>7,740</td>
</tr>
<tr>
<td>Singapore</td>
<td>9,674</td>
</tr>
<tr>
<td>Importers</td>
<td>2013</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Imported quantity, Tons</td>
<td></td>
</tr>
<tr>
<td>World</td>
<td>39,515</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>6,750</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>12,155</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>59</td>
</tr>
<tr>
<td>India</td>
<td>1,845</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1,765</td>
</tr>
</tbody>
</table>

Table 7: Imported Quantity of cardamom, neither crushed nor ground
<table>
<thead>
<tr>
<th>Country</th>
<th>Export quantity (in Metric Tons)</th>
<th>Value, US Dollar thousand</th>
<th>Year</th>
<th>Growth rate In Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepal</td>
<td>177</td>
<td>1,959</td>
<td>2013</td>
<td>-</td>
</tr>
<tr>
<td>Jordan</td>
<td>1,980</td>
<td>1,035</td>
<td>2014</td>
<td>+25</td>
</tr>
<tr>
<td>Kuwait</td>
<td>833</td>
<td>915</td>
<td>2015</td>
<td>+12</td>
</tr>
<tr>
<td>Singapore</td>
<td>1,600</td>
<td>1,598</td>
<td>2016</td>
<td>-14</td>
</tr>
<tr>
<td>Syrian Arab Republic</td>
<td>2,145</td>
<td>2,054</td>
<td>2017</td>
<td>+37</td>
</tr>
<tr>
<td>Egypt</td>
<td>0</td>
<td>915</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States of America</td>
<td>941</td>
<td>969</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>698</td>
<td>629</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iraq</td>
<td>0</td>
<td>319</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>688</td>
<td>712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>615</td>
<td>479</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qatar</td>
<td>546</td>
<td>429</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oman</td>
<td>441</td>
<td>544</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>360</td>
<td>339</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>309</td>
<td>341</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>27</td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sudan</td>
<td>0</td>
<td>865</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>314</td>
<td>298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td>129</td>
<td>185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>17</td>
<td>149</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free Zones</td>
<td>141</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iran, Islamic Republic of</td>
<td>247</td>
<td>159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myanmar</td>
<td>31</td>
<td>49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 8: Pattern of Export International Trade**

**Worldwide export data**

<table>
<thead>
<tr>
<th>Year</th>
<th>Export quantity (in Metric Tons)</th>
<th>Value, US Dollar thousand</th>
<th>Growth rate In Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>55,976</td>
<td>317,907</td>
<td>-</td>
</tr>
<tr>
<td>2014</td>
<td>62,901</td>
<td>400,115</td>
<td>+25</td>
</tr>
<tr>
<td>2015</td>
<td>59,587</td>
<td>447,612</td>
<td>+12</td>
</tr>
<tr>
<td>2016</td>
<td>56,905</td>
<td>392,222</td>
<td>-14</td>
</tr>
<tr>
<td>2017</td>
<td>57,178</td>
<td>539,361</td>
<td>+37</td>
</tr>
</tbody>
</table>

**Sources:** ITC calculations based on UN COMTRADE and ITC statistics.
Table 9: Pattern of Import International Trade

<table>
<thead>
<tr>
<th>Year</th>
<th>Import Quantity (In Metric Tons)</th>
<th>Value, US Dollar thousand</th>
<th>Growth Rate in Value (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>39,515</td>
<td>314,220</td>
<td>-</td>
</tr>
<tr>
<td>2014</td>
<td>50,261</td>
<td>367,876</td>
<td>+17</td>
</tr>
<tr>
<td>2015</td>
<td>51,203</td>
<td>443,676</td>
<td>+20</td>
</tr>
<tr>
<td>2016</td>
<td>46,133</td>
<td>340,834</td>
<td>-30</td>
</tr>
<tr>
<td>2017</td>
<td>*47,889</td>
<td>481,585</td>
<td>+14</td>
</tr>
</tbody>
</table>

Sources: ITC calculations based on UN COMTRADE and ITC statistics. *mirror data

Global demand for cardamom is expected to increase in future, mainly on account of increased culinary applications and functional foods. It can lead to increase cardamom trade. Due to the importance of the food safety, hygiene, quality control of cardamom specifications, it’s necessary to develop an international harmonized standard.

**(d) Amenability of commodity to standardization**

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

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

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

Since cardamom is placed in the group of spices category with considerable higher prices (the world’s third-most expensive spice), there is always a risk of impurity and manipulation for this valuable product. Thus, need to pay special attention to consumer protection against adulteration.

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

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

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

The existing standards, which may be considered while developing a Codex standard for cardamom, are:

- ISO 882 Cardamom \([Elettaria cardamomum (Linnaeus) Maton var. minuscula Burkill]\) – Specification
  Part 1: Whole Capsules
- ISO 882-2 Cardamom \([Elettaria cardamomum (Linnaeus) Maton var. minuscula Burkill]\) - Specification
  Part 2: Seeds

**5. Relevance to the Codex strategic objectives**

The elaboration of a Codex standard for cardamom is in accordance with the strategic objectives as it will address current and emerging issues in the global trade of spices and culinary herbs by establishing a science-based standard developed with full participation of Codex Member countries throughout the process of development of the standard, and thereby promoting adoption of these standards by Member countries in their national legislation, and facilitating fair practices in food trade and protecting consumer health. Therefore this proposal is consistent with the Strategic Plan 2020-25 of the Codex Alimentarius Commission, in particular outcomes 1.2, 2.2, 3.2, and 4.2.
Goal 2- Promoting Widest and Consistent application of scientific principles and Risk analysis

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

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

So, elaborating of this standard can help to avoid the risks such as lack of Good Hygienic Production, non-compliance with grading, adding artificial color. In addition, this proposed standard can be a reference for solving food safety issues such as microbial contamination, heavy metals, contaminants, residue pesticides, food additives.

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

This is proposed as a new global standard and has no relation to any other existing Codex text on this item, except that this standard will make reference to relevant standards and related texts developed by General Subject Committees as follows:

- General Principles of Food Hygiene (CXC 1-1969)
- Code of Hygienic Practice for Low Moisture Foods (CXC 75-2015), Annex III Spices and dried culinary herbs
- Maximum limits for pesticides residues adopted by Codex
- Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (CXG 21-1997)
- General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995)
- General Standard for the Labelling of Prepackaged Foods (CXS 1-1985)
- Recommended Methods of Analysis and Sampling (CXS 234-1999)

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

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

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

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

9. Proposed Time Schedule

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

PROPOSAL FOR NEW WORK FOR A CODEX STANDARD FOR DRIED AND DEHYDRATED TURMERIC
(CCSCH Group category – Dried roots, Rhizomes and Bulbs)

(For Approval)

1. Purpose and scope of standard

The scope of the work is to establish a worldwide standard for dried and dehydrated whole, split, crushed or ground turmeric (*Curcuma longa* L.) of the family *Zingiberaceae* to facilitate international trade and consumer protection.

The objective of the standard is to consider the essential quality characteristics of dried turmeric for industrial food production and for direct human consumption, including for catering purposes and other essential uses as required, to aid international trade in this product.

2. Relevance and timeliness

India is the largest producer, consumer and exporter of turmeric in the world, and other major producers include Pakistan, China, Haiti, Jamaica, Peru, Taiwan and Thailand.

Due to the growing trend of worldwide dried turmeric production and trade, it is necessary to establish a commodity standard covering the safety, quality, hygiene and labelling in order to have a reference that has been internationally agreed by consensus between the producing, consuming and trading countries across the world. More significantly, the present status of dried or dehydrated turmeric is not limited to any particular region and hence justifies the elaboration of an international standard commensurate with the dried or dehydrated turmeric’s true standing as an increasingly valuable worldwide commodity. In addition, the drafting of a Codex standard for dried turmeric will help to protect consumers’ health and to promote fair trade in accordance with the international agreements in particular the WTO SPS and TBT Agreements.

Traditionally, dried turmeric is used for culinary purposes as well as in confectionery industry. It is also frequently used to flavour or colour curry powders, mustards, butters, and cheeses.

3. Main aspects to be covered

The standard entails main aspects related to the definition of the produce, essential quality factors e.g moisture and labelling requirements in order to provide certainty to the consumer on the nature and characteristics. The standard will supply high quality and safe products to protect consumer’s health and against misleading practices by including all the necessary parameters such as moisture, proper labelling, and other permissible limits among others.

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

- Establish the minimum requirements of dried turmeric which shall be complied with, independently from the quality parameters and other requirements regardless of class.
- Define the categories to classify dried or dehydrated turmeric in accordance with its characteristics.
- Establish the tolerance as regards quality and size that may be permitted of dried or dehydrated turmeric contained in a package.
- Include the provisions to be considered relating to the uniformity of the packaged product and the packaging used.
- Include provisions for the labelling and marking of the product in accordance with the CODEX general standard for the labelling of pre-packaged foods.
- Include provisions for pesticides and contaminants with the reference to the General Standard for Contaminants and toxins in food.
- Include provisions for hygiene with the reference to the general principles of food hygiene and other relevant codes of hygiene practices.
- References to Methods of Analysis and Sampling.

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

General Criteria

Codex standard for dried or dehydrated turmeric would be beneficial for developing countries because they are the major producers, exporters and consumers. Establishing a standard for the commodity as a spice is necessary to meet minimum requirements for food quality and safety to ensure consumer protection.
(a) Volume of production and consumption in individual countries and volume and pattern of trade between countries

There are as yet no exact figures available on the global production data of turmeric, but these will naturally become available as the project advances. Production data of India for Turmeric is listed below in Table 1.

Table 1: Production data of India for Turmeric

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (in Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>986690</td>
</tr>
<tr>
<td>2013-14</td>
<td>1092630</td>
</tr>
<tr>
<td>2014-15</td>
<td>846250</td>
</tr>
<tr>
<td>2015-16</td>
<td>967060</td>
</tr>
<tr>
<td>2016-17</td>
<td>925270</td>
</tr>
<tr>
<td>2017-18</td>
<td>863460</td>
</tr>
<tr>
<td>2018-19</td>
<td>959797</td>
</tr>
<tr>
<td>2019-20</td>
<td>938955</td>
</tr>
</tbody>
</table>

Source: Directorate of Arecaanut and Spices Development (DASD), Kozhikode

Turmeric is one of the spices of the most traded in the world with a total volume of exports from producing countries such as India, Pakistan and China. Detailed statistics of worldwide import and export of Turmeric are given in Table 2 and 3.

Table 2: Worldwide Export of Turmeric

<table>
<thead>
<tr>
<th>Year</th>
<th>Export Quantity (in Tonnes)</th>
<th>Export Value (in USD thousand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>116496</td>
<td>166470</td>
</tr>
<tr>
<td>2014</td>
<td>112810</td>
<td>158298</td>
</tr>
<tr>
<td>2015</td>
<td>125237</td>
<td>189366</td>
</tr>
<tr>
<td>2016</td>
<td>142608</td>
<td>253942</td>
</tr>
<tr>
<td>2017</td>
<td>162058</td>
<td>275016</td>
</tr>
<tr>
<td>2018</td>
<td>175817</td>
<td>348625</td>
</tr>
<tr>
<td>2019</td>
<td>192527</td>
<td>304000</td>
</tr>
</tbody>
</table>

Source: ITC calculations based on UN COMTRADE and ITC statistics.
### Table 3: Worldwide Import of Turmeric

<table>
<thead>
<tr>
<th>Year</th>
<th>Import Quantity (in Tonnes)</th>
<th>Import Value (in USD thousand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>88515</td>
<td>137114</td>
</tr>
<tr>
<td>2014</td>
<td>105397</td>
<td>165164</td>
</tr>
<tr>
<td>2015</td>
<td>137677</td>
<td>218665</td>
</tr>
<tr>
<td>2016</td>
<td>**</td>
<td>246287</td>
</tr>
<tr>
<td>2017</td>
<td>150623</td>
<td>265440</td>
</tr>
<tr>
<td>2018</td>
<td>**</td>
<td>304660</td>
</tr>
<tr>
<td>2019</td>
<td>**</td>
<td>294847</td>
</tr>
</tbody>
</table>

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

**- In the source, import volume is mentioned as “No quantity”

The available data is updated as of 2019.

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

Imports and exports of turmeric take place for many applications. Trade in turmeric as at the moment depends on producing and importing countries mutual agreement in terms of grades and specifications, which lead to having different standards for each country. However, it would be preferred that the trade in turmeric is carried under an international criteria based on Codex Standard. Therefore, the new work would provide internationally recognized specific standards in order to enhance international trade and to accommodate the importer’s requirements.

International organizations ISO already has an existing standards for turmeric. 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 import of dried or dehydrated turmeric by most countries is increasing. India, Iran and USA are the largest importers of dried turmeric according to the current statistic of FAOSTAT. India, Indonesia and Myanmar are the major exporters globally according to FAOSTAT.
Table 4, Export of Turmeric from countries in 2019 (Top 15 countries by value)

<table>
<thead>
<tr>
<th>SI No</th>
<th>Country</th>
<th>Exported quantity, Tons</th>
<th>Export value, USD (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>India</td>
<td>131122</td>
<td>194348</td>
</tr>
<tr>
<td>2.</td>
<td>Viet Nam</td>
<td>3566</td>
<td>15608</td>
</tr>
<tr>
<td>3.</td>
<td>Myanmar</td>
<td>22594</td>
<td>14472</td>
</tr>
<tr>
<td>4.</td>
<td>Netherlands</td>
<td>3146</td>
<td>9752</td>
</tr>
<tr>
<td>5.</td>
<td>Indonesia</td>
<td>7163</td>
<td>7765</td>
</tr>
<tr>
<td>6.</td>
<td>Ethiopia</td>
<td>6319</td>
<td>5313</td>
</tr>
<tr>
<td>7.</td>
<td>United Kingdom</td>
<td>846</td>
<td>4912</td>
</tr>
<tr>
<td>8.</td>
<td>Germany</td>
<td>1128</td>
<td>4773</td>
</tr>
<tr>
<td>9.</td>
<td>Bangladesh</td>
<td>1824</td>
<td>4679</td>
</tr>
<tr>
<td>10.</td>
<td>United States of America</td>
<td>924</td>
<td>4664</td>
</tr>
<tr>
<td>11.</td>
<td>Peru</td>
<td>1938</td>
<td>3633</td>
</tr>
<tr>
<td>12.</td>
<td>China</td>
<td>1118</td>
<td>3196</td>
</tr>
<tr>
<td>13.</td>
<td>Fiji</td>
<td>1285</td>
<td>3068</td>
</tr>
<tr>
<td>14.</td>
<td>Spain</td>
<td>676</td>
<td>2641</td>
</tr>
<tr>
<td>15.</td>
<td>United Arab Emirates</td>
<td>2089</td>
<td>2574</td>
</tr>
</tbody>
</table>

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

Table 5, Import of Turmeric into countries in 2019 (Top 15 countries by value)

<table>
<thead>
<tr>
<th>SI No</th>
<th>Country</th>
<th>Imported quantity, Tons</th>
<th>Import value, USD (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>India</td>
<td>28019</td>
<td>34258</td>
</tr>
<tr>
<td>2.</td>
<td>United States of America</td>
<td>9881</td>
<td>33929</td>
</tr>
<tr>
<td>3.</td>
<td>Iran, Islamic Republic of</td>
<td>14638</td>
<td>15477</td>
</tr>
<tr>
<td>4.</td>
<td>United Kingdom</td>
<td>8910</td>
<td>14887</td>
</tr>
<tr>
<td>5.</td>
<td>Bangladesh</td>
<td>15617</td>
<td>14447</td>
</tr>
<tr>
<td>6.</td>
<td>Germany</td>
<td>5041</td>
<td>13173</td>
</tr>
<tr>
<td>7.</td>
<td>Malaysia</td>
<td>8410</td>
<td>11039</td>
</tr>
<tr>
<td>8.</td>
<td>Japan</td>
<td>4668</td>
<td>10360</td>
</tr>
<tr>
<td>9.</td>
<td>Netherlands</td>
<td>4411</td>
<td>9316</td>
</tr>
<tr>
<td>10.</td>
<td>Morocco</td>
<td>8198</td>
<td>9225</td>
</tr>
<tr>
<td>11.</td>
<td>United Arab Emirates</td>
<td>7608</td>
<td>9064</td>
</tr>
<tr>
<td>12.</td>
<td>Saudi Arabia</td>
<td>5966</td>
<td>7853</td>
</tr>
<tr>
<td>13.</td>
<td>Canada</td>
<td>1395</td>
<td>6745</td>
</tr>
<tr>
<td>14.</td>
<td>Sri Lanka</td>
<td>5517</td>
<td>6409</td>
</tr>
<tr>
<td>15.</td>
<td>France</td>
<td>2006</td>
<td>6233</td>
</tr>
</tbody>
</table>
(d) Amenability of commodity to standardization
The characteristics of Dried or dehydrated Turmeric from its cultivation to retail sale e.g. cultivar varieties, composition, quality characteristics, packaging, etc. all lead to adequate parameters for the standardization of the product.

(e) Coverage of the main consumer protection and trade issues by existing or proposed general standards
There is no general standard specifically covering dried or dehydrated Turmeric in international trade. The new work will strengthen consumer protection and will facilitate trade in dried or and dehydrated Turmeric 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 different forms of dried and / or dehydrated Turmeric like whole, sliced, crushed and powdered.

(g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies)
The existing standards, which may be considered while developing a Codex standard for dried turmeric, are:
- ISO 5562:1983, Turmeric, whole or ground (powdered) - Specification
- ISO 5566:1982, Turmeric - Determination of colouring power - Spectrophotometric method
- European Spice Association quality minima document
- American Spice Trade Association (ASTA)

5. Relevance to the Codex strategic objectives
The elaboration of a Codex standard for dried and dehydrated turmeric is in accordance with the strategic objectives as it will address current and emerging issues in the global trade of spices and culinary herbs by establishing a science-based standard developed with full participation of Codex Member countries throughout the process of development of the standard, and thereby promoting adoption of these standards by Member countries in their national legislation, and facilitating fair practices in food trade and protecting consumer health. Therefore, this proposal is consistent with the Strategic Plan 2020-25 of the Codex Alimentarius Commission, in particular outcomes 1.2, 2.2, 3.2, and 4.2.

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:
- **General Principles of Food Hygiene** (CXC 1-1969)
- **Code of Hygienic Practice for Low Moisture Foods** (CXC 75-2015) (Annex III)
- **Principles and guidelines for the Establishment and Application of Microbiological Criteria related to Foods** (CXG 21-1997)
- **Maximum limits for pesticide residues adopted by Codex.**
- **General Standard for Contaminants and Toxins in Food and Feed** (CXS 193-1995)
- **General Standard for the Labelling of Prepackaged Foods** (CXS 1-1985)
- **Recommended Methods of Analysis and Sampling** (CXS 234-1999)

7. Identification of any need for any requirements for and availability of expert scientific advice
Scientific advice from external global bodies like FAO/WHO; JECFA and others are welcomed, but no expert scientific advice is foreseen at this stage. Published research documents by international bodies will be referred in the process of preparing the standard, if found necessary.

8. Identification of any need for technical input to the standard from external bodies so that this can be planned for.
Technical input from the International Organization for Standardization (ISO), American Spice Trade Association (ASTA), and European Spice Association (ESA) while developing this standard may be sought when developing this standard.

9. Proposed timeline for completion of the new work
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 CODEX STANDARD FOR SPICES IN THE FORM OF DRIED FRUITS AND BERRIES

(Allspice, Juniper berry, Star anise, Vanilla)

(For Approval)

1. Purposes and the Scope of the Standard

The purpose of the new work is to develop a group standard for spices derived from the Dried Fruits and Berries. This new approach to standard development will demonstrate the rapid development of standard development that the CCSCH’s can build on for broader application within the Committee mandate.

2. Relevance and timeliness:

Spices and culinary herbs are not used for caloric content, but as condiments or ingredients for imparting taste/flavor to food and beverages. They are globally used and are historically an important part of international trade. In many countries SCH are one of the few remaining crops largely produced by small farmers as their main source of income. Therefore, developing a group standard quickens the standard development process to meet the needs of traders and consumers, but also assist in providing markets to producers. To expedite development of this group standard, spices within the group without significant trade data, chemical and physical characteristics are excluded from this proposal. However, when such information becomes available, they can be added at the request of a member.

Due to competitive markets, producers and traders are no longer willing to wait four to six years for the development of a standard. Therefore, to be relevant to the SCH sector, the CCSCH must deliver its standards - scientifically correct and in the shortest possible time. The grouping proposed allow the CCSCH to develop standards for six spices within the dried fruit and berry group at once. This format focusing mainly on the chemical (authenticity - taste/flavor) and physical (safety and quality) characteristics. This faster method of development CCSCH standards will not compromise SCH quality and safety because these two characteristics sections will be the principal focal sections of the standard.

3. The main aspects to be covered

The main aspects to be covered in the Proposed Draft group Standard will include:

1. **Scope**
   - This Standard applies to spices derived from dried fruits and berries offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes spices intended for industrial processing.

2. **Product Definition**:
   - a) The specific names of standardized products will be indicated whereby all six (6) commonly named products are listed in a table with their general, scientific, and subgroup names.
   - b) **Styles**: This section will be elaborated in a broad manner that will apply to all products within the group in the predominant styles in trade (whole, cut/broken and ground/powdered). This section can be amended to reflect the style characteristics of a specific product that is different from the three indicated.

3. **Classification**:
   - Quality classes (Extra, Class I & Class II) are omitted because (i) they are not internationally accepted, (ii) the premise that Codex Standards should establish the “absolute minimum requirements” for international trade and consumer safety and (iii) the growing belief that classification should be left to contractual arrangements between traders.

   **Sections 3 to 9**: These sections include mainly templated (standard format) texts that rarely change. However, changes may be made if needed to better reflect the product characteristics, trade practices or to enhance food safety.

   **Annex on Chemical and Physical Characteristics**: This annex includes two tables, one for chemical characteristics and one for physical characteristics. Each table has the common product name listed in the same sequence as in Section 2.1 Product Definition along with the name of individual chemical and physical characteristics that must be checked as the heading of columns. In the same line with the named spice and the different styles, beneath each column heading, the minimum or maximum characteristic value will be entered. A last column titled "Other
factors/comments” will be used to facilitate inclusion of characteristics unique to an individual spice that do not fit within the common column headings.

4. An assessment against the Criteria for the Establishment of Work Priorities

The development of the Group Standard format has been discussed in every CCSCH session. In the last three sessions, it discussed by “In-session Working Group on Priorities” that selects project proposals submitted for the development of standards. Most of the text in the CCSCH standards is consistent across all spices and herbs, (for example, sections including contaminants, food hygiene, weights and measures, food additives and labeling). The group standard will allow the CCSCH to focus on the variables among spices in ensuring consumer food safety and fair practices in the food trade.

Within the Dried Fruits and Berries group, the CCSCH completed two standards for Black, White and Green Peppers (CXS 326-2017) and Cumin (CXS 327-2017). The committee is currently working on the development of a standard for Chili Pepper and Paprika at Step 3. A proposal for the development of a standard for cardamom was placed on the priority list for standardization at CCSCH4.

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

When compared to the volume of other agricultural products internationally traded, the volume of dried SCH are miniscule, however, SCH are have higher monetary value per kg or lb. or ton. Based on the availability of trade data, the following spices within the fruit and berries group are prioritized at this time (Table 1). Some other spices in this group including ambrette, cambodge, grains of paradise, kokam, dried mango and dried tamarind were not included in the table since they were not globally significantly traded. Production trade and value data for some spices in this group are not readily available due to the practice of placing the so called “minor spices” individual production and trade data under the general “spice” heading including by FAOSTAT and the Harmonized Tariff System (HTS).

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Top Producers and Trade pattern between countries</th>
<th>Trade Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Allspice</td>
<td>$1.94B total (2018)</td>
<td>591.5K Metric tons (2019)</td>
</tr>
<tr>
<td>Top Exporters (2018)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India: $690M; China: $531M; Spain: $170M; Peru: $80.5; Mexico: $74.6M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Importers (2018)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States: $298M; Vietnam: $208M; Thailand: $153M; China: $145M; Spain: $103M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Juniper berry</td>
<td>$16,996K total exported (2019)</td>
<td></td>
</tr>
<tr>
<td>$54,000 total imported (2018)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Exporters (2019)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switzerland: $1,870K; United States: $1,740K; Brazil: $1,634K; Austria: $1,548; United Kingdom: $1,350K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Importers (2018)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India: $23,000; United States: $21,000; Tunisia: $5,000; Egypt: $3,000; Netherlands: $1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Star Anise</td>
<td>$281M total (2018)</td>
<td></td>
</tr>
<tr>
<td>Top Exporters (2018)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China: $51.2M; Egypt: $38.1M; India: $36.8M.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Vietnam: $29M; Afghanistan: $18.3M

**Top Importers**
- India: $44.9M; Vietnam: $42.2M;
- Germany: $27.5M; United States: $24.3M; United Kingdom: $9.03M

4 Vanilla $1.02 Billion total (2019) 7575 tons (2018)

**Top Exporters**
- Madagascar: $584M; France: $99M; Germany: $69M; Indonesia: $69M; Canada: $65M

**Table 1.** Trade data for various fruits and berries type of spices. [The spices listed in this table does not comprise all spices in the dried fruit and berries grouping.]

b) **Diversification of national legislations and apparent resultant or potential impediments to International trade:**

Globally, there exist diverse regulatory requirements and industry trade practices from existing national and international standards and regulations, including the following:

- Agmark India
- European Spice Association (ESA) - Quality Minima Document Rev.5
- International Organization for Standardization (ISO)
- America Spice Trade Association (ASTA) Cleanliness Specifications
- United States Food and Drug Administration (FDA) Defect Action Levels
- Bureau of Standards Jamaica
- United States Department of Agriculture (USDA)
- Bureau of Indian Standards
- Indian Food Safety Standards 2.9.36 Pimento or Allspice

c) **International or regional market potential:**

*Table 1* lists certain spices that are significantly traded internationally in terms of market potential, trade values and patterns. These are therefore justified to be included for the development of standards under the ‘fruits and berries’ grouping scheme. These include four spices, i.e. allspice, juniper berries, star anise, and vanilla.

d) **Amenability of commodity(ies) to standardization**

There is existing information for physical and chemical characteristics for these spices, and discussions with the major exporting and importing countries of these commodities will help in harmonizing the values for some of the parameters as well as provide data for some missing parameters. Some of the listed spices have national food safety standards and some have current ISO standards.

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

The new work proposal includes significantly traded spices and, consumer protection is expected. The priority commodities for inclusion in the group as indicated in Table 1.

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

Some of the work already undertaken includes:
ISO 11178:1995 Star anise (Illicium verum Hook. f.) — Specification

5. Relevance to the Codex strategic objectives

This grouping approach aligns with the Codex 2020-2025 strategic goals. As aforementioned, developing group standards will address critical issues in a timely manner. The development of these standards will be based on science and risk-analysis principles. Categorizing the spices based on the plant part used, will not only make the standard functional, efficient and user-friendly but organizing these various spices in a single location will increase the impact and will make the Codex standards more recognizable across the globe.

6. Information on the relation between the proposal and other existing Codex documents as well as other Ongoing Work

This standard would take into account the already adopted Codex Standards on spices, i.e. Black/white/green pepper (BWG) (CXS 326); and Cumin (CX 327); as well as the ongoing work on dried chili and paprika. The new proposal cardamom will also be taken into account.

7. Identification of Requirement for Availability of Expert Scientific Advice

The expertise required during the development of this standard will be referred to the relevant committees including the Codex Committee on Food Labeling (CCFL), Codex Committee on Methods on Analysis and Sampling (CCMAS), Codex Committee on Food Additives (CCFA), and the joint FAO/WHO programs (JECFA, JEMRA, etc.).

8. Identification of Need for Technical Input to the Standard from External Bodies

No need for technical input from external bodies is anticipated at this point in time.

9. Proposed timeline for completion of work

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.