CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

E

REP17/SCH

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX ALIMENTARIUS COMMISSION

40th Session

CICG, Geneva, Switzerland

17 – 22 July 2017

REPORT OF THE 3RDSESSION OF THE CODEX COMMITTEE ON SPICES AND CULINARY HERBS

Chennai, India

6 – 10 February 2017

TABLE OF CONTENTS

SUMMARY AND STATUS OF WORK					
Responsible Party	**Purpose**	**Text/Topic**	**Code**	**Step**	**Para(s)**
Members/ CCEXEC 73 CAC40	Comments/ Adoption	Draft standard for Cumin	N05-2014	8	29
	Comments/ Adoption	Draft standard for Thyme	N07-2014	8	38
	Comments/ Adoption	Proposed draft standard for Black, White and Green Pepper	N04-2014	5/8	42
CCMAS CCFL	Endorsement	Relevant sections of the: i) Draft standard for Cumin; ii) Draft standard for Thyme; iii) Proposed draft standard for Black, White and Green Pepper			29& 57 38& 57 42
CCEXEC73/CAC 40	Approval	The project documents for new work (dehydrated ginger, dried garlic, , dried chili peppers and paprika, basil, saffron, nutmeg and cloves)			82
		The proposed strategy for developing horizontal group standards			69
CCEXEC73	Information	The development of the general standard template to facilitate elaboration of new standards			69
		Extension of the timeline for completion of work on Oregano to 2019			53
EWG/Members	Redraft/ comments	Revised proposed draft standard for Oregano (led by Turkey and Mexico)		2/3	51
EWG/Members	Draft/ comments	Group standard for “dried roots, rhizomes, and bulbs” based on the following commodities i.e. dried or dehydrated ginger and dried garlic (led by Nigeria, India and Mali)		2/3	82 b(i)
EWG/Members	Draft/ comments	Group standard for “dried fruits and berries” based on the following commodities i.e. dried chili peppers and Paprika (led by India and Argentina)		2/3	82 b(ii)
EWG/Members	Draft/ comments	Group standard for “dried leaves” basing on Basil (led by Egypt and Sudan)		2/3	82 b(iii)
EWG/Members	Draft/ comments	Group standard for “dried floral parts” based on the following commodities i.e. saffron and Cloves” (led by India, Iran, Nigeria and Sri Lanka)		2/3	82 b(iv)
EWG/Members	Draft/ comments	Group standard for “dried seeds” based on nutmeg (led by Indonesia)		2/3	82 b(v)

LIST OF ABBREVIATIONS

AOAC	Association of Official Analytical Chemists
AQL	Acceptable Quality Level
BWG pepper	Black, White and Green Pepper
CAC	Codex Alimentarius Commission
CCCF	Codex Committee on Contaminants in Foods
CCEXEC	Executive Committee of the Codex Alimentarius Commission
CCFA	Codex Committee on Food Additives
CCFFV	Codex Committee on Fresh Fruits and Vegetables
CCFH	Codex Committee on Food Hygiene
CCFL	Codex Committee on Food Labelling
CCMAS	Codex Committee on Methods of Analysis and Sampling
CCPFV	Codex Committee on Processes Fruits and Vegetables
CCSCH	Codex Committee on Spices and Culinary Herbs
CL	Circular letter
CRD	Conference room document
EU	European Union
EWG	Electronic Working Group
GMP	Good Manufacturing Practice
GSFA	General Standard on Food Additives
FAO	Food and Agriculture Organization of the United Nations
FDA	Food and Drug Administration
GL	Guideline
GSCTFF	General Standard for Contaminants in Food and Feed
GSFA	General Standard for Food Additives
GSLPF	General Standard for Labelling of Prepackaged Food
TFFJ	Task Force on Fruit Juices
WHO	World Health Organization
WTO	World Trade Organization

INTRODUCTION

1. The Codex Committee on Spices and Culinary Herbs (CCSCH) held its Third Session in Chennai, India, from 6 to 10 February 2017, at the kind invitation of the Government of India. Dr M. R. Sudharshan, former Director Research, Spices Board India, Ministry of Commerce and Industry, Government of India, chaired the Session. The Session was attended by 35 Member countries, one Member organisation and 4 Observer organisations. The list of participants, including the Secretariats, is given in Appendix I.

OPENING OF THE SESSION

2. Dr A. Jayathilak IAS, Chairman of the Spices Board India, welcomed delegates. He underlined the growing status of the Committee and reaffirmed the importance of food quality and safety as key aspects of consumer satisfaction.

3. Mrs Rita Teaotia, Commerce Secretary, Government of India, opened the session by lighting the traditional lamp. In her opening speech, she noted the global importance of culinary herbs and spices in both food and non-food sectors. She further noted how trade in spices had grown tremendously and that it was necessary to eliminate any trade distortions and promote harmonisation of quality standards. Mrs Teaotia underlined the need for a commitment to the quality and safety of spices and that science should form the bedrock of the work of the Committee.

4. Mr Ashish Bahuguna IAS, Chairperson of FSSAI and Dr P. S. Sreekantan Thampi, Organizing Secretary of the Committee also addressed delegates.

5. Dr M. R. Sudharshan, Chairperson of the Committee and Mr Tom Heilandt, Secretary of the Codex Alimentarius Commission, made opening remarks at the start of the plenary session.

Division of Competence[1]

6. The Committee noted the division of competence between the European Union and its Member States, according to paragraph 5, Rule II of the Procedure of the Codex Alimentarius Commission.

ADOPTION OF THE AGENDA (Agenda Item 1)[2]

7. The Committee :

   a) Agreed to consider the agenda items in the following order: 2, 3, 10b, 4, 5, 6, 7, 8,

   b) Adopted the revised Provisional Agenda as its Agenda for the Session.

   c) Agreed to establish an in-session Working Group (WG), chaired by the United States and co-chaired by India, to:

      - Discuss further work on grouping of spices and culinary herbs (Agenda item 9);
      - Consider proposals for new work submitted in reply to CL 2015/27-SCH (Agenda Item 11); and
      - Assess the proposals according to the Criteria for the Establishment of Work Priority, set out in the Procedural Manual.

MATTERS REFERRED BY THE CODEX ALIMENTARIUS COMMISSION AND ITS SUBSIDIARY BODIES (Agenda Item 2)[3]

8. The Committee noted that matters referred from CAC39, and its subsidiary bodies were mainly for information while others would be discussed under relevant agenda items.

Relationship between dried aromatic herbs and culinary herbs

9. The Committee recalled the discussions at CAC36 (2013), during the establishment of CCSCH, where it was proposed that the name of the Committee be “Committee for Spices and Culinary Herbs” to reflect that the herbs to be considered are limited to those for culinary purposes and not for use as food additives or other purposes[4].

10. The Committee agreed to inform CCFH that the terminology “aromatic herbs” was broad and it encompassed products beyond the scope of CCSCH; and was of the view that the term “culinary herbs” was more appropriate to use in the *Code of Hygienic Practice for Low-Moisture Foods* (CAC/RCP 75-2015) Annex III on spices and aromatic herbs.

---

[1] CX/SCH 17/2/1.
[2] CRD1 (Annotated Agenda – Division of competence between the European Union and its Member States).
[3] CX/SCH 17/3/2; CRD3 (Comments of Ghana, India and Kenya).
[4] REP13, Para 151

ACTIVITIES OF INTERNATIONAL ORGANIZATIONS RELEVANT TO THE WORK OF CCSCH (Agenda Item 3)[5]

11. The Committee noted with appreciation the activities of ISO and IPC relevant to its work.

DRAFT STANDARD FOR CUMIN (Agenda Item 4)[6]

12. The Committee agreed to consider the draft standard section by section, made editorial corrections and took the following decisions in each respective section:

1 - Scope

a) Taking into account the discussion and conclusions on the working definition for "further processing" and "industrial processing" (see Agenda Item 10 b), the Committee discussed whether to include the following elements in the scope:

Inclusion of "Fruits and seeds"

b) CCSCH noted that from a botanical point of view cumin is classified as a fruit, but from a trade perspective it is classified under seeds and therefore agreed to use the term "seed" and insert a footnote as indicated under section 2.1 – Product description.

Industrial food production and industrial processing

c) The Committee noted that spices were generally used as ingredients during industrial food production, and agreed to replace the phrase "offered for industrial food production" with "offered for use as an ingredient in food processing".

d) Considered the term "industrial processing" and noted that this term included extraction of oils and oleo-resins from spices, which may be used as flavourings in different sectors and that such product description are excluded from the scope of CCSCH. The Committee agreed to exclude "industrial processing" from the scope.

Exclusion of "further processing"

e) The Committee considered the necessity of having an exclusion clause on "further processing" in the scope. Delegations supporting retaining the exclusion clause noted that: it was a common trade practice for spices to be traded for further processing and the removal of this term would be an impediment to trade. They further pointed out that the presence of such a clause in the scope provided clarity to the users of the standard.

f) Delegations in support of deleting "further processing" from the scope noted that the scope was very clear and concise and the addition of this phrase would require further discussion of the section on labelling.

g) To ensure clarity, conciseness of the scope, and consistency with the Procedural Manual, CCSCH also agreed to redraft the scope and transfer the reference to "seeds and fruits" as well as scientific names to section 2.1 Product definition.

Conclusion

13. Based on the discussions above, the Committee adopted the scope of the standard, deleted the use of the term "further processing" and included an exclusion clause for industrial processing.

2. Section 2.1 - Product Definition

14. The Committee:

a) Replaced the term "fruits" with "seeds" and introduced a footnote *"Botanically known as dried fruits* in accordance with the decision and explanation provided under para 12b), and also included the family name.

b) Excluded the term "cultivars" as it was explained that these were not applicable, as indicated in section 2.3 (Varietal Types).

3. Section 3.2.2 – Infestations

c) Noted that this section covered more than one parameter i.e. it covered live insects as well as dead insects, insect fragments and rodent contamination generally considered collectively as filth; and that

[5] CX/SCH 17/3/3; CRD 7 (Information from IPC).
[6] REP 16/SCH, APP III; CX/SCH 17/3/4; CX/SCH 17/3/5 Add.1; CRD 4 (Comments of European Union, Ghana, India, Kenya, Malaysia, Mali, Nigeria and Thailand); CRD 12 (Comments of United Republic of Tanzania)

these aspects and mammalian excreta could be included in Table 1 as defects; and that only parameters measured by the naked eye apply.

d) Further observed that the term "practically free" in case of defects was subjective; that cumin should not contain live insects as required by international Protocols; and that this was an important aspect for inspection of food commodities;

e) Agreed to transfer the remaining requirements in section 3.2.2 (infestations) to Table 1.

Section 3.2.4 - Physical characteristics (Table 1)

15. Revised the title, parameters and values for various grades as follows:

Title of Table 1

Agreed to amend the title of Table 1 to:

a) include *"Allowed tolerances for defects"* as it was clarified that the parameters highlighted in the Table related to defects other than physical parameters and that physical characteristics related more to parameters like shape, colour, bulk density etc;

b) include "cracked" cumin as the physical requirements for both whole and cracked cumin are the same.

16. Extraneous *Vegetable matter*

a) Agreed the following definition of "extraneous vegetable matter"

"Extraneous [Vegetable] Matter - Vegetative matter associated with the plant from which the product originates - but is not accepted as part of the final product"

b) Amended the parameter "*extraneous matter*" to read "*extraneous vegetable matter*"; and introduced a footnote to define the parameter;

c) Maintained the proposed values for these parameters as they were considered not to be of any health concern.

17. Foreign *Matter*

a) Agreed the following definition of "foreign matter":

"Foreign Matter - *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";*

b) introduced a footnote to define the parameter;

c) agreed a numerical value of 0.1% for class I for this parameter, instead of using a subjective term i.e. "practically absent".

18. *Insect*-damaged matter

Revised the parameter for Class 1 to 0.5%, as it was explained that insect damaged matter is considered more objectionable.

Mouldy Cumin

19. The Committee noted the views expressed by delegations objecting to the inclusion of a parameter for mouldy cumin noting that this was not a standard parameter and it would be difficult to detect and even quantify. Delegations in support of the inclusion of the parameter noted that the presence of mould was related to handling practices and such a parameter was important in protecting different interests.

20. *Ground* Cumin

a) Noted the explanation that Table 1 (Physical requirements for whole cumin/cracked cumin) cannot apply directly to ground cumin, and that some of the parameters like "*presence of insect fragments*" for ground cumin would require microscopic examination; and, therefore, values for such parameters needed careful consideration.

b) Agreed that this parameter would be included at a later date when information becomes available;

Conclusion

21. In line with the discussions under para 14c) on infestation, CCSCH agreed to include the parameters for live, dead insects, insect fragments, and rodent contamination; and mouldy seeds as indicated in Table 1 and adopted the Table as amended.

Section 3.2.5 - Chemical characteristics (Table 2)

22. Moisture *content*

- Transferred the parameter for “Moisture” to a new section 3.2.1.

Section 4 – Food additives

23. Noted that anticaking agents were used in ground products to enhance the free-flowing characteristics of ground products and therefore agreed to allow the use of anticaking agents as optional additives in this product, as listed in Table III of the GSFA

Section 8 – Labelling

24. Agreed to include the following additional requirements for labelling:

a) Styles and grade under 8.2.2;

b) Country of origin as an optional requirement for purposes of traceability.

25. Noted that the work on labelling on non-retail containers was ongoing in CCFL, agreed to maintain the proposed section on labelling of non-retail containers and that this section would be reviewed in the future when such work was completed.

Section 9 - Methods of Analysis and sampling

26. *Moisture* determination

a) Amended ISO 938: 1980 to ISO 939: 1980, and

b) Included the term “distillation” as a principle for AOAC 2001.12.

c) Included a method determination of mouldy seeds i.e. Macroanalytical procedure manual USFDA technical bulletin V.39 B

27. *Mould* damage *and insect damage*

a) Included a link in the standard to the FDA website[7] where the methods of analysis for these two parameters can be retrieved.

28. CCSCH noted the concerns of some delegations that some methods had not been endorsed by CCMAS yet such methods were already being used in international trade. The delegations further pointed out that some of the proposed methods were costly and would require substantial investment by laboratories to implement. They proposed that CCMAS be requested to propose alternative equivalent methods.

Conclusion

29. The Committee:

i. Noted that substantial progress had been made on the standard and all outstanding issues had been addressed;

ii. Agreed to forward the draft Standard to the Commission for adoption at Step 8 (Appendix II);

iii. Agreed to forward the additional methods in para 26(c) for endorsement and request CCMAS to propose alternative equivalent analytical methods that could be used;

PROPOSED DRAFT STANDARD FOR DRIED THYME (Agenda Item 5)[8]

30. The Committee considered the draft standard section by section, noted comments and made the following decisions, ensuring that the text was aligned with the work already completed for cumin (Agenda item 4):

Section 2.1: Product definition

31. Despite the concern that defining thyme strictly by botanical name could be detrimental to other plant species commonly traded and accepted as thyme and that it would negative affect producers, it was agreed to maintain the term *Thymus* spp.

[7] http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32

[8] REP16_SCH, App IVe; CX/SCH/3/5 (Comments at Step 6 (Replies to CL 2016/24-SCH)); CRD5 (Comments of European Union, Ghana, India, Malaysia, Nigeria and Thailand); CRD14 (Comments of The Philippines)

Section 3: Quality factors

32. A suggestion was made to include a specific reference to the product being free from economic adulteration to allow for better understanding that this was something specifically prohibited in the standard. However, it was noted that individual quality parameters of what is permitted were dealt with in the various sections of the standard and so anything not included was effectively adulteration. It was agreed, therefore, that a specific reference to economic adulteration, did not add value to the text.

33. Agreed to delete section 3.2.2 and transfer the requirements for absences of live insects and for filth to Table 1

3.2.3 Physical Characteristics

34. The Committee agreed for Table 1:

    a) to add a row for "mammalian excreta" with a value of 11 mg/kg;

    b) that the expression % of mass fraction for foreign matter should be used consistently in all tables;

    c) to maintain the value for maximum level of visible mould[9];

Section 4: Food Additives

35. Concerns were expressed about the technological justification for including anticaking agents. Delegations opposed to the addition of anticaking agents noted that if permitted they would encourage adulteration and compromise quality, and thus affect the specified chemical parameters. There was a need to take into account the real use of this product. Delegations in support of including anticaking agents noted that these additives were applicable to ground/powdered products as they facilitate the free-flowing properties of such products (especially those in small packs) to avoid over compacting.

36. The Committee agreed to maintain the use of anticaking agents as they were technologically justified for use in ground and powder products to facilitate the free-flowing properties, and to make reference to all the anticaking agents as listed in Table 3 of the GSFA, with maximum use level GMP.

Section 8: labelling

37. The Committee agreed:

    a) to include the wording under Name of the Product (8.2.1): "The name of the product shall be dried thyme or thyme when the omission of the term dried would not mislead or confuse the consumer";

    b) to include a new subsection with the option that "country of harvest" may be indicated;

    c) to add sections on Commercial Identification and Inspection Mark (optional) as present in the draft text of the BWG pepper standard;

Conclusion

38. The Committee:

    i. Noted that all outstanding issues had been addressed.

    ii. Forwarded the proposed draft Standard for Dried Thyme to CAC for adoption at Step 8 (Appendix III).

    iii. Agreed to ask CCMAS for alternative or equivalent analytical methods to those already typed.

PROPOSED DRAFT STANDARD FOR BLACK, WHITE AND GREEN PEPPER (BWG) (Agenda 6)[10]

39. India, as the Chair of the eWG on Proposed Draft Standard for BWG, introduced document CX/SCH 17/3/6.

40. The Committee agreed to consider the draft standard on BWG section by section ensuring that the text was aligned with the work already completed for cumin and thyme (Agenda items 4 and 5).

Discussions

41. The Committee took the following decisions:

    a) Sections 1 & 2 - Scope/Product description

[9] Mould test procedure provided by the United States: http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32

[10] CX/SCH 17/3/6; CX/SCH 17/3/6 Add.1; CRD 6 (Comments of European Union, India, Indonesia, Kenya, Malaysia, Mali, Nigeria and Thailand); CRD7 (Information from IPC); CRD12 (Comments of United Republic of Tanzania); CRD13 (Comments of Republic of Korea); CRD17 (Comments of Ecuador)

- Aligned the scope with other draft standards on spices and culinary herbs (i.e. Cumin and Thyme);
- Deleted the words “final packaging and storage” from paragraph 2 of the section 2.1 (Product description).

b) Section 3.2 Quality factors

- Introduced a new section for odour, flavour and colour;
- Split the Table 1 on Characteristic Parameters for BWGs (section 3.2.1) into two parts i.e. Table for Odour, flavour and colour; and Table 1 for Basic Characteristics for BWG.

c) Section 3.2.2 Infestation – transferred the requirements on “free from live insects” and from dead insects, insect fragments and rodent contamination to the Table 2 on Physical characteristics for BWG whole peppers;

d) Section 3.2.3 Classification

- Agreed to maintain only three classes in the standard as these are in line with the existing Trade Practices;
- Deleted Table 2 - *Physical characteristics for BWG whole peppers (unclassified and ungraded)* and related texts on “unclassified”/or “ungraded” BWG in as this class was outside the scope of the draft standard;
- Discussed and agreed all the parameters in Table 3 - *Physical characteristics for BWG whole peppers (classified and graded)* and corresponding values for requirements;
- inserted explanatory footnotes to define: ‘light berries; extraneous matter; foreign matter and pin heads’

e) Section 3.2.4 Chemical Characteristics

- Agreed all the parameters in Table 4 (Chemical characteristics for BWG whole peppers) and Table 5 Chemical Characteristics for BWG ground peppers);
- Deleted reference to the requirements for unclassified and ungraded BWG in the subtitle for Table 4;

f) Section 4 Food Additives

- Agreed that SO_2 – INS 220 was technologically justified for use as a preservative in green peppers at a maximum level of 150 mg/kg;
- Deleted any references made to processing aids and flavourings as these are not used in the production of BWG.

The European Union (EU) and Switzerland expressed a reservation on Table 6 (title) as they considered there was no technological justification for the use of sulphur dioxide (SO_2) as a food additive in green pepper, therefore, in their view, Table 6 should be deleted. Although the Committee noted the point made by the EU, the issue could not be discussed as it had not been raised during the agenda item.

g) Section 6 Food Hygiene

- Corrected the reference for the *Code of Hygienic Practice for Low Moisture Foods* (RCP 75-2015) Annex III Spices and Aromatic Herbs;

h) Section 8 Labelling

- Agreed to include the name “Pepper corn” as an alternative trade name under section 8.2.1 (Name of product);
- Deleted reference to “unclassified” or “ungraded” under section 8.2.4;
- Added “country of origin” as an optional declaration.

Conclusion

42. The Committee:

i. Noted that all outstanding issues had been addressed.

ii. Forwarded the proposed draft Standard for Black White and Green Pepper to CAC for adoption at Step 5/8 (Appendix IV).

iii. Noted that food additives, labelling and method of analysis provisions would be endorsed by CCFA, CCFL and CCMAS, respectively.

43. The EU and Switzerland expressed their reservation on the advancement of the draft standard for black, white and green pepper to step 5/8.

PROPOSED DRAFT SANDARD FOR OREGANO (Agenda item 7)[11]

44. The Committee did not discuss the detail of the Proposed Draft Standard for Oregano (CX/SCH 17/3/7) as prepared by the eWG, chaired by Argentina and Turkey, but focussed on the scope of the proposed draft standard as well as the direction the work should take.

45. Divergent views were expressed on the need to develop a single standard for oregano, Origanum L from the Lamiaceae family as defined in the project document; or whether, in moving towards a horizontal approach to standard development, it was more appropriate to develop a standard that covered all products traded under the name oregano. The significant difference would be the inclusion of oregano belonging to the genus *Lippia*.

Discussion

46. Delegations in favour of working on two separate standards for *Origanum* L. and *Lippia* advised caution in grouping different products, noting that the physical and chemical properties for the two families were different. They further noted that biodiversity should be protected; that grouping them limited their importance; that consumer information should be a priority, and that there were no impediments to trade in having two separate standards. It was also argued that if a single group standard for all oregano were to be developed then, for consistency, *Lippia* should also be included in the thyme standard.

47. Delegations in favour of developing a single standard for products traded as oregano noted that including both families in the scope of the standard would reflect the way the product is traded. It was also noted that developing horizontal or lateral standards was already progressing in other committees (CCPFV: *Standard for Quick Frozen Vegetables* CODEX STAN 320-2015; and TFFJ: *General standard for Fruit Juices and Nectars* CODEX STAN 247-2005) and was in line with the Codex Strategic Plan 2014-2019. Other views expressed included the importance of different products to the social, environmental and economic strength of a region and that their exclusion from a standard would have a detrimental effect on these factors and not facilitate trade.

48. In clarifying what was meant by "grouping" for these products, it was explained that with the new proposed group format for standards, the Committee would be able to establish oregano as a group and then indicate separate requirements for all plants in commerce trading as oregano: each would have different characteristics; they would not be combined but would be grouped under one standard.

49. An observer also noted that from a trade perspective it would be advisable to have a single standard that showed the differences for different product types. Confusion in trade should be avoided.

50. The Chairperson noted that from views expressed in the Committee it was emerging that all parties wished to continue work on a standard for oregano but that a convergence point was needed. He suggested establishing an eWG to explore this.

Conclusion

51. The Committee agreed to establish an eWG, hosted by Turkey and co-hosted by Mexico, working in English and taking into account discussions and comments at the present Session:

    i. to examine the documents already developed in the Committee;

    ii. to prepare a revised proposed draft standard for all products traded as oregano;

    iii. to consider how a draft standard could be subsequently incorporated into a grouping under the new system being developed in the Committee.

52. The eWG will work via the online platform[12] and will report back to the Committee at its next session, on the understanding that should there be no progress on the work, the Committee will consider discontinuing work.

53. The Committee also agreed to inform CCEXEC on the extension of the timeline for completion of work to 2019.

54. The Committee agreed to return the proposed draft standard to Steps 2/3 for redrafting by the aforementioned eWG, circulation for comments and consideration at the next Session.

[11] CX/SCH 17/3/7; CX/ SCH 17/3/7 Add.1 (Comments on proposed draft standard for oregano); CRD8 (Comments of Argentina, European Union, Kenya, Malaysia, Thailand and Turkey); CRD14 (Comments of The Philippines); CRD17 (Comments of Ecuador).

[12] http://forum.codex-alimentarius.net/

SAMPLING PLANS FOR CUMIN AND THYME (Agenda Item 8)[13]

55. Brazil, as the Chair of the eWG on the development of sampling plans for cumin and thyme, presented document CX/SCH 17/3/8 and called the attention of the Committee to the two recommendations on the possible approaches the Committee could consider to develop sampling plans:

- Using the requirements of *General Guidelines on Sampling* (CAC/GL 50-2004) noting that this pathway would be useful as the CAC/GL 50-2004 was rather difficult to apply;
- Using the sampling plans already developed by CCPFV, since Spices and Culinary herbs, and Processed Fruits and Vegetables followed the similar steps during production.

56. One delegation indicated that they would appropriately express their technical concerns in CCMAS on the two proposed sampling plans for net weight greater than 4.5 kg at the AQL = 6.5. Another delegation was of the view that there was no need to make reference to the sampling plans developed by CCPFV.

Conclusion

57. The Committee agreed to:

i. adopt and incorporate the draft sampling plans into the draft standards for cumin and thyme as per annex I of the document;

ii. forward the draft sampling plans for Cumin and Thyme for endorsement by CCMAS.

FURTHER WORK ON GROUPING OF SPICES AND CULINARY HERBS[14] (Agenda Item 9)

58. The United States, as Chair, introduced the report (CRD 2) of the in-session WG on the grouping of Spices and Culinary Herbs (SCH) as well as prioritization of proposals for new work, and informed the Committee that in terms of Agenda Item 9 the WG had revised the proposed draft general standard template; reviewed the approach on grouping of SCH; and had made two specific recommendations for consideration by the Committee.

Recommendations 3: Revised group template

59. The Committee considered the revised draft general standard template for SCH ensuring that the text was aligned and consistent with decision taken during the consideration of the draft standards for cumin, thyme and BWG (Agenda items 4, 5 and 6).

60. The Committee also made the following further clarification and decisions on the respective sections:

a) Scope – The text of the scope should make reference to appropriate grouping of Spices and Culinary Herbs as listed in Annex I of the General template for the layout;

b) Food additives – Noted that use of food additives in Spices and Culinary Herbs should be considered on a product by product basis and agreed that the text below would be substituted by an appropriate text after respective review:

"The need for the use of food additives will be considered on a case by case basis"

c) Methods of Analysis – (Table of methods of Analysis): inserted a footnote indicating the latest methods of analysis be used;

d) Labelling – Included Country of origin (optional) and

e) Included a section on Sampling and a text: "To be developed".

Recommendation 4: Strategy for grouping of Spices and Culinary herbs

61. The Committee considered the recommendation and noted as follows:

Grouping approaches

62. The Committee noted the two approached towards grouping of spices and culinary herbs for purposes of standardisation i.e. i) grouping based on alphabetical arrangement of common trade/scientific names or ii) grouping based on the plant parts as used in the spices and culinary herbs industry: dried floral parts; dried fruits and berries; dried seeds; dried leaves; bark; dried rhizomes, roots and bulbs; culinary herbs as well as those plants that cannot fall into any of the identified categories (unclassified). Under each category different spices and culinary herbs had been identified.

---

[13] CX/ SCH 17/3/8; CRD 9 (Comments of Ghana, Malaysia, Nigeria, Thailand, Malaysia and IOSTA)

[14] CX/ SCH 17/3/9; CRD 2 (Report of the In-session working group on priorities); CRD 9 (Comments of Ghana, Malaysia, Nigeria, Thailand, Malaysia and IOSTA); CRD 12 (Comments of United Republic of Tanzania);

63. The Committee agreed to adopt the grouping category based on plant parts, as this provided the possibility of sub-dividing the work into manageable units.

Grouping Strategy

64. The Committee discussed and agreed that the grouping strategy would involve elaborating general requirements for a particular group of spices falling under the same plant part category while the specific requirements for each spice or herb under that given group would be put in an Annex. Inclusion of a spice or culinary herb in an Annex to a group standard would require submission of a project document.

Status of the list spices and culinary herbs

65. CCSCH clarified that the illustrative list of spices and culinary herbs was not exhaustive; would be regularly updated, would always take into account work undertaken by other international organisations (e.g. ISO) and that it would be used as an internal document for the Committee to guide its work.

66. The Chairperson explained that at its first session, CCSCH had developed a comprehensive list containing approximately 113 spices and culinary herbs; and from this list the Committee had agreed to consider only four projects at a time. The Chairperson further noted there were currently nine new proposals for consideration, yet since the first session only three draft standards were now nearing completion. Therefore, expediting the work of the Committee required developing a new strategy through grouping of standards. He therefore proposed that the Committee consider adopting the new approach which would allow a number of standards to be covered in a short time.

67. The Committee supported the grouping of spices and noted the concerns expressed that more time was needed to reflect on the implication of grouping, in terms of its impact on the use of food additives and contaminants, since several commodities would be grouped together in the same standard.

68. Japan and Turkey expressed the view that within each group category, products should be prioritised for efficient use of resources.

Conclusion

69. The Committee agreed to recommend to CAC, to approve the proposed strategy for developing horizontal group standards which would enable the Committee to increase its outputs as well as complete its work in a defined time. CCSCH further agreed to inform the CAC, that to facilitate its work, the general standard template had been developed and this would be used for the new standards.

DISCUSSION PAPER ON GLOSSARY TERMS FOR SPICES AND CULINARY HERBS (Agenda item 10a)[15]

70. The Committee agreed to maintain this document as an internal reference tool to be used as required when drafting standards and noted that in no way should the document contravene the Procedural Manual especially regarding existing Codex definitions such as food additives and contaminants.

DISCUSSION PAPER ON FURTHER PROCESSING - IN THE CONTEXT OF SPICES AND CULINARY HERBS (Agenda item 10b)[16]

71. The United States introduced the discussion paper and recommendations on how to proceed in finding a common understanding for the term “further processing” in the scope of the draft standards being developed by the Committee.

Discussion

72. Delegates expressed the following views:

- Packaging into consumer ready packaging does not modify the characteristics of the commodity itself. Hence, it should not be considered as “further processing”. Therefore, the wording of the last sentence in paragraph 3.3.a should be amended to exclude such references;
- The definition of the term “further processing” and “industrial processing” are unnecessary. The term “further processing” has been commonly used and widely known in adopted Codex standards. If the term “further processing” is required to be defined by CCSCH, the description should be consistent with terms used by other Codex committees;
- The definition of “industrial processing” is ambiguous because it is usually applied to large scale production. However, there is need to take into account small scale production where processing for

[15] CX/SCH 17/3/9; CRD 10 (Comments of the EU, India, Kenya, Nigeria and Thailand); CRD 15 (Comments of Egypt);
[16] CX/SCH 17/3/11; CRD 10 (Comments of the EU, India, Kenya, Nigeria and Thailand); CRD12 (Comments of Tanzania); CRD 13 (Comments of the Republic of Korea);

dried spices and herbs occurs. The proposed definition of "industrial processing" is more related to the meaning of further processing;

- The term "blending" should be moved to the definition of further processing; blending is used by companies to obtain consistent flavour and aroma;
- "Blending" does not change the ingredients unless combined with other items whereas a process such as "cleaning" would. Therefore "blending" should not be included in the definition of further processing.

73. The United States clarified that in general further processing includes those activities that make spices ready for the market and further explained that spices were not considered as food in themselves but are used as ingredients in foods and therefore the term "formulated foods" was used in this context.

74. On the question of the inclusion of the term "blending" in the definition for further processing, the Chairperson noted that "blended" spices were not in the terms of reference of CCSCH and therefore proposed to leave the term out.

Conclusion

75. The Committee agreed to the proposed definitions for use in CCSCH as follows:

a. **Further Processing**

Activities necessary to transform spices and herbs from raw agricultural commodities into finished, ready-to-eat product for direct consumption by individuals or use by commercial enterprises including catering purposes or in formulated food products. These steps may include: cleaning, sorting, sifting, grinding, grading,.

b. **Industrial Processing**

The application of physical or chemical processes that substantially modifies or transforms a product from its original state into other products such as the extraction of essential oils or other usable component from the spice.

PROPOSAL FOR NEW WORK (REPLIES TO CL 2015/27-SCH)[17] (Agenda Item 11)

76. The Committee noted that this item had been considered together with Agenda Item 9 by the in-session working group and agreed to take into account the relevant decisions made with respect to the grouping of spices and culinary herbs under Agenda Item 11 and recommendations contained in CRD2

Recommendation 1 and 2 - Project documents for new work

77. The Committee discussed the recommendation and made the following decisions:

- Agreed that the three project proposals for new work i.e. dried or dehydrated ginger; dried chili peppers and paprika; and dried garlic (that were prioritized at CCSCH2) were still adequate and needed no further revision except for the timelines (Appendices V, VI, VII);
- Confirmed that the updated project proposals for new work on basil, cloves, nutmeg, and saffron met the requirements for new work.

Recommendation 5: Elaboration of group standards

78. The Chairperson recalled that CCSCH2 had prioritized 9 items and that new work would be based on the prioritized list. He further noted that the Commission, promotes the development of horizontal (lateral) standards, and there were lessons to be learnt from CCPFV.

79. The Codex Secretariat explained that CCEXEC would be of great assistance, in case the Committee required guidance or inputs on the proposed approach of developing group standards.

80. The Committee noted the recommendation of the in-session working group and took the following decisions:

a) Assigned the above-mentioned spices and culinary herbs (para 77) according to the group categories developed under Agenda Item 9 as follows:

[17] CX/ SCH 17/3/12; CX/ SCH 17/3/12 Add.1; CRD 16 (Revised project document for new work on codex standard for basil); CRD 18 (Proposal for new work on codex standard for cloves); CRD 19 (Proposal for new work on codex standard for nutmeg);

Commodity	Category	Assigned group
dried or dehydrated ginger	Spice	Dried Roots, Rhizomes, Bulbs
dried chilli peppers	Spice	Dried Fruits and Berries
paprika	Spice	Dried Fruits and Berries
dried garlic	Spice	Dried Roots, Rhizomes, Bulbs
basil	Culinary herb	Dried Leaves
cloves	Spice	Dried Floral Parts
nutmeg	Spice	Dried Seeds
saffron	Spice	Dried Floral Parts

b) Group standards would be developed using the general template for standards as elaborated under Agenda Item 9;

81. The Committee also noted that ongoing work for the standard on oregano would proceed through grouping by common trade name/botanical name as discussed under Agenda 7 and not by grouping based on parts of plant (i.e. leaves).

Conclusion

82. The Committee agreed to submit all new work proposals (Appendices V-XI) to CCEXEC for critical review and, that subject to the outcome of the critical review and approval by CAC40, it would:

a) start new work on the development of standards for the following commodities based on the general concept of group standards:

- "dried or dehydrated ginger" and "dried garlic" – under dried roots, rhizomes, bulbs
- "dried chili peppers" and "paprika" – under dried fruits and berries;
- "cloves and saffron" – under dried floral parts;
- "nutmeg" – under dried seeds;
- "basil" – under dried leaves.

b) establish the following electronic working groups to prepare the proposed draft group standards for circulation for comments at Step 3 and consideration at its next Session.

	Commodity	EWG	Host/co-host	Language
i.	Dried or dehydrated ginger	Dried Roots, Rhizomes, Bulbs	Nigeria	English
	Dried garlic		India/Mali	
ii.	Dried chili peppers and Paprika	Dried Fruits and Berries	India Argentina	English
iii.	Basil	Dried leaves	Egypt Sudan	English
iv.	Saffron	Dried Floral parts	Iran India	English
	Cloves		Nigeria Sri Lanka	English
v.	Nutmeg	Dried seeds	Indonesia	English

83. The eWGs will work via the online platform[18].

84. The Committee also agreed that should CAC decide not to proceed with the elaboration of standards based on grouping; then only eWGs on: dried or dehydrated ginger; dried chili peppers and paprika; and dried garlic would start work on elaboration of individual commodity standards.

OTHER BUSINESS (Agenda item 12)

85. There was no other business.

DATE AND PLACE OF NEXT SESSION (Agenda Item 13)

86. The Committee was informed that its Fourth Session was tentatively scheduled to be held in 2018 in India. The exact date and venue would be decided between the Indian and Codex Secretariats.

[18] http://forum.codex-alimentarius.net/

LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS
LISTA DE PARTICIPANTES

CHAIRPERSON - PRÉSIDENT - PRESIDENTE

Dr Madenur Rangaswamy Sudharshan
(Former Director Research,Spices Board India)
222, 9th Main Road, Srinagara
Bangalore, Karnataka - 560050, India
Tel: +91 080 26677114
Email: mrs44545@hotmail.com; ccsch.chair@nic.in

CHAIR'S ASSISTANT - ASSISTANT DU PRÉSIDENT - ASISTENTE DEL PRESIDENTE

Assistant to Chair (on Stage)
Ms Nilina Boban
Assistant Director,
Spices Board India
350, Tulsi Path (Near Punjab National Bank)
Six mile, GS Road,
Guwahati, Assam, India - 781022
Tel: +91 8089086340
Email: nilina.spicesboard@gmail.com

Assistant to Chair (on Floor)
Ms Puvichonu Rhutso
Senior Field Officer
Spices Board India,
NH-Bypass, Kochi, India - 682025.
Tel: +91 9072395099
E-Mail: puvichonu.rhutsosb@nic.in

AUSTRALIA - AUSTRALIE

Ms Nora Galway
Agriculture Counsellor
Australian High Commission
1/50 G Shantipath, Chanakyapuri
New Delhi, 1100021
Phone: +91 11 4149 4354
Email: nora.galway@dfat.gov.au

BANGLADESH

Mr Md. Saiful Hasib
Director General
Bangladesh Standards and Testing Institution
116/A, Tejgaon Industrial Area
Dhaka, 1208
Bangladesh
Phone: +880 2 8870275/171104318
Fax: +880 2 8870276
Email: bsti@bangla.net

BAHRAIN

Mr. Qasim Merza Alaraibi,
Sr. Food Technologist
Ministry of Health - Public Health Laboratory
P.O Box 12, Manama
Kingdom of Bahrain
Email: QORAIBI@HEALTH.GOV.BH,
QASIMALARAIBI@GMAIL.COM

Mr. Hasan Ali Jasim
Food Control Specialist
Ministry of Health - Food hygiene section
P.O. Box 12, Manama
Kingdom of Bahrain
Email: Halijas@hotmail.com

BELGIUM - BELGIQUE - BELGICA

Mrs Isabelle Watelet
Expert on plant
FPS Public Health, Food Safety and Environment
Food, Feed and other consumption products
Place Victor Horta
Brussels, 1060
Email: isabelle.watelet@health.belgium.be

BRAZIL - BRÉSIL - BRASIL

Mr André Luiz Oliveira
Inspector
Ministry of Agriculture, Livestock and Food Supply
CGQV/DIPOV
Esplanada dos Ministérios, Bloco D, Sala 344B
Brasília, 70030-900Phone: +55 61 3218 3428
Fax: +55 61 32449372
Email: andre.oliveira@agricultura.gov

CANADA - CANADÁ

Mrs Alison Wereley
Senior Policy Analyst
Canadian Food Inspection Agency, Codex
1400 Merivale Road, Ottawa,
Ontario K1A 0Y9
Canada
Ottawa , K1A 0Y9
Phone: 613 773-6450
Fax: 613 773-5603
Email: alison.wereley@inspection.gc.ca

Mr Kevin Smith
National Manager
Canadian Food Inspection Agency
Standards of Identity, Composition and Grades
1400 Merivale Road
Ottawa , K1A 0Y9
Phone: 613-773-6225
Fax: 613-773-5603
Email: Kevin.Smith@Inspection.gc.ca

Mr Nitin Verma
Counselor Agriculture & Technical Specialist
Canadian Food Inspection Agency
The High Commission of Canada in India 7/8
Shantipath, Chanakyapuri
New Delhi, 110 021 India
Phone: 011-91-4178-2896
Fax: 011-91-4178-2041
Email: nitin.verma@international.gc.ca

CHILE - CHILI

Mr Jaime Gonzalez
Agregado Agrícola
Ministerio de Agricultura
Agregaduría Agrícola India
A 16/1 Poorvi Marg, Vasant Vihar, New Delhi, 110057
Phone: (91-11) 26145323
Email: jgonzalez@chileindia.com

CHINA - CHINE

Ms Yang Li
Associate Professor
China National Institute of Standardization
No.4, Zhichun Road, Haidian District,
Beijing, China 100191
Telephone: +86-10-58811646
Fax: +86-10-58811646
E-mail: yangli@cnis.gov.cn

EGYPT - ÉGYPTE - EGIPTO

Dr Shaima Hassan
Operations Manager, Royal Herbs S.A.E
Shabramant, Giza
Egypt
Phone: +201113336534
Email: KAMELSHAIMAA@GMAIL.COM

Eng Ahmed Elhelw
Food Standards Specialist
Egyptian Organization for Standardization and Quality (EOS)
16 Tadreeb AlMudarbeen St., AlAmeriah
Cairo, Egypt.
Phone: +201224083536
Email: helws_a@hotmail.com

Prof Mervat Fouad
Consultant of Herbs & medicinal plants and Foods for Special Dietary Uses,
National Nutrition Institute (NNI)
53, Amman st, Dokki, Giza,
Egypt
Phone: +201005016726
Email: mevo_73@hotmail.com

ESTONIA - ESTONIE - ESTONIA

Mr Erkki Miller
Head of Plant Products Bureau
Ministry of Rural Affairs
Agricultural Market Organisation Department
Lai Street 39//41, Tallinn , 15056
Phone: +3726256503
Email: erkki.miller@agri.ee

ETHIOPIA - ÉTHIOPIE - ETIOPÍA

Mr Tesfaye Yakob Melkamu
Codex Contact Person/ Environment
Health and safety Standards Development
Ethiopian Standards Agency
Standard Development Diractorate
Bole Subcity, Woreda 14, House Number B20/24,
P.O. Box 2310 Addis Ababa.
Phone: +251-911-425-585
Fax: +251-646-0880/81
Email: melkamtesfa@gmail.com

EUROPEAN UNION - UNION EUROPÉENNE - UNIÓN EUROPEA

Mr Marco Castellina
Administrator
European Commission
DG Sante D 2
Rue Froissart 101
Brussels, 1049
Phone: +32 229-87443
Email: marco.castellina@ec.europa.eu

GERMANY - ALLEMAGNE - ALEMANIA

Mr Walther Quasigroch
Administrator
Federal Ministry of Food and Agriculture
Rochusstrasse 1
Bonn , 53123
Phone: +49 228 99 529 4362
Fax: +49 228 99 529 4965
Email: Walther.Quasigroch@bmel.bund.de

INDIA - INDIE

Dr A Jayathilak (Head of the delegation)
Chairman
Spices Board India
Ministry of Commerce & Industry, Govt. of India
Cochin-682025 Kerala India
Phone: +91 9446022644, +91 484 233361
Email: jayathilak@nic.in

Dr Sajan Kurien
Director of Research
Kerala Agricultural University
KAU Main Campus Vellanikkara,
Thrissur Kerala 680656
Phone: +91-487-2438101
Email: dr@kau.in

Dr Femina
Deputy Director
Directorate of Arecanut and Spices Development
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Co-operation &
Farmers Welfare
Government of India, West Hill
P.O, Kozhikode-673 005
Phone: +91-0495-2369877; +91-94000921
Email: spicedte@nic.in

Mr Suresh Khurana
Consultant
Food Safety and Standards Authority of India
FDA Bhawan, Near Bal Bhawan
New Delhi , 110002
Email: khurana183@gmail.com

Mr Sunil Bakshi
Advisor Codex
Food Safety and Standards Authority of India
FDA Bhawan, Near Bal Bhawan
New Delhi, 110002
Phone: +91-11-23237439
Email: sbakshi@fssai.gov.in

Mr Perumal Karthikeyan
Assistant Director (Codex and Regulations)
Food Safety and Standards, Authority of India
FDA Bhawan Near Bal Bhavan Kotla Road
New Delhi, 110002
Phone: 91-11- 23237419
Email: baranip@yahoo.com

Ms Shibani Panigrahi
Technical Officer
Food Safety and Standards Authority of India
FDA Bhawan, Kotla Road, Near Bal Bhawan
Phone: 09958661738
Email: shibanipanigrahi90@gmail.com

Ms Ruby Mishra
Technical Officer
Food Safety and Standards Authority of India
FDA Bhawan Near Bal Bhavan Kotla Road
New Delhi, 110002
Phone: 09711680681
Email: ruby.mishra18@gmail.com

Ms Sakshee Pipliyal
Technical Officer
Food Safety and Standards Authority of India
FDA Bhawan Near Bal Bhavan Kotla Road
New Delhi, 110002
Phone: 8802498553
Email: sakee25@gmail.com

Dr Amit Agarwal
Director
Natural Remedies Pvt. Ltd
Plot No. 5B, Veerasandra Industrial Area,
19th KM Stone, Hosur Road, Electronic City Post,
Bangalore 560100.
Phone: 080 40209999, +91 09845008951
Email: amit@naturalremedy.com

Dr K K Sharma
Coordinator, Pesticide Residues,
Indian Agricultural Research Institute
LBS Building, IARI, Pusa Campus, New Delhi,
India
Phone: 011-25846396
Email: kksaicrp@yahoo.co.in

Mr Ashish Kumar Dixit
Lead-Regulatory Affairs,
Federation of Indian Chambers of Commerce
& Industry (FICCI),
Dabur Research and Development Centre
Ghaziabad, Uttar Pradesh India
Phone: +91-9891589059
Email: ashish.dixit@mail.dabur

Mrs Shruti Sukumaran
Codex Cell,
Spices Board
Ministry of Commerce & Industry, Govt. of India
Cochin - 682025 Kerala, India
Email: ccschshrutisukumaran@gmail.com

Mr Sonal K
Codex Cell,
Spices Board
Ministry of Commerce & Industry, Govt. of India
Cochin - 682025 Kerala, India
Email: ccsch.sonal@gmail.com

Mr Bhoopathi L
Codex Cell
Spices Board
Ministry of Commerce & Industry, Govt. of India)
Cochin - 682025 Kerala, India
Email: lbhoopathi@gmail.com

Ms Pooja
Junior Chemist, Codex Cell,
Spices Board
Ministry of Commerce & Industry, Govt. of India
Cochin - 682025 Kerala, India
Email: pooja.sb@nic.in

Dr Dinesh Singh Bisht
Scientist, Quality Evaluation Laboratory,
Spices Board
Ministry of Commerce & Industry, Govt. of India
Mumbai India
Email: ccsch.bisht@gmail.com

Dr A. Ranjit
Scientist, Quality Evaluation Laboratory,
Spices Board
Ministry of Commerce & Industry, Govt. of India
Plot No. R-11, SIPCOT industrial complex,
Gumidipoondi, Thiruvallur
Tamil Nadu , 601201. India
Phone: +91 44 – 27923450
Email: ranjith.a@nic.in

Dr Anand R
Scientist , Quality Evaluation Laboratory,
Spices Board
Ministry of Commerce & Industry, Govt. of India)
Plot No. R-11, SIPCOT industrial complex,
Gumidipoondi, Thiruvallur
Tamil Nadu – 601201. India
Phone: +91 44 - 27923450
Email: r.anand889@nic.in

Mr Zavier T. V
Scientist, Quality Evaluation Laboratory,
Spices Board
(Ministry of Commerce & Industry, Govt. of India)
Cochin - 682025 Kerala India
Tel: +91 9495668125 / +91 484 2333610
Email: zaviersbqel@gmail.com

Dr A B Remashree,
Director (Research & Development),
Spices Board
Ministry of Commerce & Industry, Govt. of India
Cochin - 682025 Kerala India
Email: remashreeab.sb@gov.in

Mr M.S. Ramalingam
Assistant Director
Spices Board
(Ministry of Commerce & Industry, Govt. of India)
Cochin - 682025 Kerala India
Email: ccschramalingam@gmail.com

Mr Ramesh Babu N.
Scientist, Quality Evaluation Laboratory
Spices Board
(Ministry of Commerce & Industry, Govt. of India)
Cochin- 682025 Kerala India
Email: ccsch.ramesh@gmail.com

Mr Venugopal G
Scientist
Spices Board (Quality Evaluation Laboratory)
Ministry of Commerce & Industry, Govt. of India)
Cochin - 682025 Kerala India
Email: ccsch.venu@gmail.com

Mr Vipul Kumar
Assistant Director
Export Inspection Agency
Ministry of Commerce & Industry, Govt of India
6th Floor, CMDA Tower-II, 1, Gandhi Irwin Road,
Egmore, Chennai-600008,
Tamil nadu
Phone: +91-9790823953
Email: eia-chennaiffp@eicindia.gov.in

Dr T. John Zachariah
Head
ICAR-Indian Institute of Spices Research
Crop Production and Post-Harvest Technology
Marikunnu P.O., Kozhikode (Calicut), Kerala, India
Email: john@spices.res.in

Dr K. Nirmal Babu
Director
ICAR-Indian Institute of Spices Research
Crop Production & Post Harvest Technololgy
Marikunnu P.O., Kozhikode (Calicut),
Kerala, India - 673012
Phone: 9447331455
Email: director@spices.res.in

Dr Gopal Lal,
Director,
National Research Centre on Seed Spices
Ajmer, Rajasthan India.
E-mail: nrcss.director@gmail.com

Dr K. S. Murthy,
Head of R&D and PD - Spices
ITC Limited - ABD ILTD
Post Box No. 317,
GT Road, Guntur - 522 004 (AP) India
Telephone: 0863 - 2349737
E-mail: k.satyamurthy@itc.in

INDONESIA - INDONÉSIE

Dr Joni Munarso
Principal Researcher
Ministry of Agriculture
Indonesian Agency For Agricultural
Research and Development (IAARD)
Jl.Tentara Pelajar 12
Bogor
Phone: +62 2518321762
Fax: +62 2518350920
Email: jomunarso@gmail.com

Mr. Walfred Tagor Manihuruk
Director
Indonesian Trade Promotion Center, Chennai
Phone: 09952333810

Mr. Jestin Mathew
Indonesian Trade Promotion Center, Chennai
Phone: 09176508855

Mr. Vijay V. Tawde
Trade Assistant
Consulate General of the Republic of Indonesia,
Mumbai
Tele: 09821631728

IRAN (ISLAMIC REPUBLIC OF) - IRAN (RÉPUBLIQUE ISLAMIQUE D') - IRÁN (REPÚBLICA ISLÁMICA DEL)

Dr Fakhrisadat Hosseini
Assistant Prof.
Alzahra university.Biological science Faculty
E-mail: sadat77@gmail.com

Dr Hassan Nazarian
Head of National codex Committee of CCSCH
Ministry of Agriculture
E-mail: ha_nazarian@yahoo.com

JAPAN - JAPON - JAPÓN

Mr Yusuke Shimizu
Associate director
Ministry of Agriculture, Forestry and Fisheries
Food Safety Policy Division,
Food Safety and Consumer Affairs Bureau
1-2-1, Kasumigaseki, Chiyoda-ku
Tokyo , 100-8950
Phone: +81-3-3502-8732
Fax: +81-3-3507-4232
Email: yusuke_shimizu450@maff.go.jp

Ms Yoshiko Yamaguchi
Technical Committee Advisor in charge of Codex
All Nippon Spice Association
Email: yoshiko_yamaguchi@sbfoods.co.jp

Mr Satoru Soeno
Deputy Director
Ministry of Agriculture, Forestry and Fisheries
Food Industry Affairs Bureau, Food Manufacture
Division
1-2-1, Kasumigaseki, Chiyoda-ku
Tokyo, 100-8950
Phone: +81-3-6744-2249
Fax: +81-3-3502-5336
Email: satoru_soeno270@maff.go.jp

MALAYSIA - MALAISIE - MALASIA

Mr Zehnder Jarroop Augustine Mercer
Director
Malaysian Pepper Board,
Research & Development
Malaysian Pepper Board, Lot 1115,
Jalan Utama, Kuching, Sarawak, 93450
Email: zehnder@mpb.gov.my

MALI - MALÍ

Mr Mahmoud Abdoul Camara
Chargé du Service Central de Liaison du Codex pour le Mali
Agence Nationale de la Sécurité Sanitaire des Aliments
Ministère de la Santé et de l'Hygiène Publique
Centre Commercial, Rue 305 Quartier du Fleuve
BPE: 2362 Bamako
Phone: +223 20 22 07 54, +223 792934
Email: camara27@hotmail.com

Dr Diakite Oumou Soumana Maiga
Directrice Générale
Agence Nationale de la Sécurité Sanitaire des Aliments
Ministère de la Santé et de l'Hygiène Publique
Centre Commercial, Quartier du Fleuve
BPE :2362 Bamako
Phone: +223 66717987 /+223 20220747
Email: dkiteoumou24@yahoo.fr

MALTA

Mr Hadrian Bonello
Senior Environmental Health Practitioner
Secretary, Food Safety Commission
Ministry for Health
Environmental Health Directorate
Ministry for Health Continental Business
Centre Old Railway Track, Sta Venera
Phone: +35699221381
Email: hadrian.bonello@gov.mt

Prof Everaldo Attard
Consultant
Ministry of Health
Environmental Health
Department of Environmental Health
Ministry for Health Continental
Centre Old Railway Track
Sta Venera
Phone: +35621337333
Email: everaldo.attard@um.edu.mt

MEXICO - MEXIQUE - MÉXICO

Mr Daniel González Sesmas
Director de Normalización de Sector Primario e Industria Agroalimentaria
Secretaría de Economía
Dirección General de Normas
Av. Puente de Tecamachalco 6 Col. Lomas de Tecamachalco
Naucalpan de Juárez, 53950
Phone: 5552296100
Fax: 5552296100
Email: daniel.gonzalezs@economia.gob.mx

MOROCCO - MAROC - MARRUECOS

Mr Mostafa Khlifa
Chef de section Café et Epices
Laboratoire Officiel d'Analyses et de Recherches Chimiques Agriculture
25, rue Nichakra
Casablanca
Phone: 00212608848589
Fax: 00212522301972
Email: khlifaloarc@gmail.com

NETHERLANDS - PAYS-BAS - PAISES BAJOS

Ms Puck Bonnier
Senior Policy Officer Plant Supply Chain
Ministry of Economic Affairs
P.O. Box 20401
2500 EK , The Hague
Phone: +31 6 21689860
Email: p.bonnier@minez.nl

NIGERIA - NIGÉRIA

Mr Sule Idi Dafang
Assistant Director
Federal Ministry of Industry, Trade and Investment
Old Secretariat, Garki, Abuja
Phone: +2348033358961
Email: isdafang@yahoo.com

Mrs Fyne Okita
Standards Officer
Standards Organisation of Nigeria
No. 52 Lome Crescent,, Zone 7, Wuse
Abuja
Phone: +2348137909030
Email: fyne.okita@gmail.com

Mrs Chinyere Virginia Egwuonwu
Deputy Director
Standards Organisation of Nigeria
Standards Development
No. 52 Lome Crescent,, Zone 7, Wuse
Abuja
Phone: +2348033084570
Email: chiokeyegwu@yahoo.com

Mrs Mobolaji Sakirat Ogundero
Deputy Director
Ministry of Foreign Affairs
Tafawa Balewa House, Off Ahmadu Bello Way,
Central Business District
Abuja
Phone: +2349096661120
E-mail: ogunderom@yahoo.com

POLAND - POLOGNE - POLONIA

Ms Anna Gierasimiuk
Agricultural and Food Quality Inspection
Specialised Laboratory in Gdynia
UL. PILSUDSKIEGO 8/12
GDYNIA; POLAND
Email: kodeks@ijhars.gov.pl

REPUBLIC OF KOREA - RÉPUBLIQUE DE COREE - REPÚBLICA DE COREA

Ms Alchan Kim
Attorney at law
Ministry of Food and Drug Safety
Food Policy Coordination Division
187 Osongsaengmyeong2-ro, Osong-eup,
Heungdeok-gu,
Cheongju-si, Chungcheongbuk-do, 28159 Korea
Cheongju-si
Email: alchan23@korea.kr

Ms Jieun Lee
Researcher
Korea Food Research
1201-62, Anyangpangyo-ro, Bundang-gu,
Seongnam-si,
Gyeonggi-do, korea
Seongnam-si
Phone: +82-31-780-9049
Fax: +82-31-780-9154
Email: Lee.Ji-eun@kfri.re.kr

Dr Youshin Shim
Principal Researcher
Korea Food Research Institute
1201-62, Anyangpangyi-ro, Bundang-gu,
Seongnam-si,
Gyeonggi-do, korea Seongnam-si , 13539
Phone: +82-31-780-9330
Fax: +82-31-780-9154
Email: ysshim@kfri.re.kr

Mr Sangwon Lee
Senior researcher
Ministry of Agriculture, Food, and Rural Affairs
National Institute of Horticultural and Herbal Science
92 Bisanro Soimyon Eumsung
Republic of Korea
Eumsung-gun ,27709
Phone: +82-43-871-5761
Fax: +82-42-871-5761
Email: swlee1004@korea.kr

Ms Misun Park
Scientific officer
Ministry of Food and Drug Safety
Food Standard Division
187 Osongsaengmyeong2-ro, Osong-eup,
Heungdeok-gu, Cheongju-si,
Chungcheongbuk-do, 28159 Korea
Cheongju-si
Email: mspark@korea.kr

Ms Eunkyung Hong
Researcher
Ministry of Food and Drug Safety
Food Policy Coordination Division
187 Osongsaengmyeong2-ro, Osong-eup,
Heungdeok-gu, Cheongju-si,
Chungcheongbuk-do, 28159 Korea
Cheongju-si
Email: hongek3@korea.kr

SPAIN - ESPAGNE - ESPAÑA

Mrs Teresa Barres Benlloch
Embajada de España en la India
Consejería-Nueva Delhi
Nueva Delhi
Email: TBarres@magrama.es

SRI LANKA

Mr Dammika Jayawardane
Director Special Projects
Sri Lanka Export Development Board
No 42, Navam Mawatha Colombo 02
Sri Lanka.
Colombo, 01000
Phone: +94 11 2303026
Fax: +94 11 2300717
Email: dammika@edb.gov.lk

Mrs Vijai Pasqual
Senior Deputy Director
Sri Lanka Standards Institution
No. 17, Victoria Place Elvitigala Mawatha
Colombo 08 Sri Lanka.
Colombo, 01000
Phone: +94 11 2671567
Fax: +94 11 2672614
Email: vijai_pasqual@yahoo.com

Mrs Ipsitha Jayasekera
Director, Standardization
Sri Lanka Standards Institution
No.17, Victoria Place, Elvitigalla Mawatha
Colombo 8 Sri Lanka.
Colombo, 01000
Phone: +94 11 2672614
Fax: +94 11 2672614
Email: ipsitha@slsi.lk; ipsithas7@gmail.com

Dr Asoka Pushpa Kumara Seneviratne
Director General
Department of Export Agriculture
1095,Sirimawo Bandaranayake Mawatha
Peradeniya
Sri Lanka.
Phone: +94 81 2388364
Fax: +94 81 2388738
Email: mapkseneviratne@gmail.com

SUDAN - SOUDAN - SUDÁN

Prof Asia Elhassan Ahmed
Expert/Head of technical committee
Sudanese Standard & Metrology Organisation
Algamaa Street Khartoum /Sudan
Khartoum 11111
Telephone: +2460912217076
E-mail: asiaelhassan@gmail.com

Mrs Eman Mohmed Ali,
Manager of Central Lab
Quality Control Department
Sudanese Standard & Metrology Organisation
Khartoum 11111
Telephone: +2499908777982
E-mail: ir-ssmo2012@hotmail.com

SWITZERLAND - SUISSE - SUIZA

Mrs Franziska Franchini
Scientific Advisor
Federal Food Safety and Veterinary Office FSVO
Food and Nutrition
Bern, 3003
Email: franziska.franchini@blv.admin.ch

THAILAND - THAÏLANDIE - TAILANDIA

Mr Prateep Arayakittipong
Standards Officer, Office of Standard Development
Ministry of Agriculture and Cooperatives
National Bureau of Agricultural Commodity and Food Standards
50 Phahonyothin Rd., Ladyao Chathuchak
Bangkok ,10900
Phone: +6625612277
Fax: +6625613357
Email: prateep_ming@hotmail.com

Ms Sangrawee Moungchum
Standards Officer, Office of Standard Development
Ministry of Agriculture and Cooperatives
National Bureau of Agricultural Commodity and Food Standards (ACFS)
50 Phahonyothin Rd.,Ladyao, Chathuchak
Bangkok ,10900
Phone: +66 2 561 2277
Fax: +66 2 561 3357
Email: sanny-jung@hotmail.com

TOGO

Dr Dzayisse Yawo Atakouma,
Pédiatre,
Chef Service de Pédiatrie au CHU Sylvanus Olympio,
Lomé, Togo.
Phone: +22890150740
Fax: +22822213675
Email: yatakouma@yahoo.fr

TURKEY - TURQUIE - TURQUÍA

Mr Recep Ariturk
Food Engineer
Kutas Group Cooperation
Kutas Group 1140 Sk. No:57 Guney Mah.
Yenisehir / Izmir / TURKEY
IZMIR
Phone: +905412853318
Email: recep_ariturk@kutas.com.tr

Dr Betul Vazgecer
Engineer
Ministry of Food Agriculture and Livestock
Food Establishments and Codex Department
Eskisehir Yolu 9.Km Lodumlu
Ankara, 06800
Phone: +903122587754
Fax: +903122587760
Email: betul.vazgecer@tarim.gov.tr

Mr Ahmet Gungor
Food Engineer
Ministry of Food, Agriculture and Livestock
Eskisehir Yolu 9.km Lodumlu
ANKARA, 06800
Phone: +905058780899
Fax: +903122587760
Email: agungor1977@mynet.com

**UNITED KINGDOM -
ROYAUME-UNI -
REINO UNIDO**

Dr Michelle Mcquillan
Department for Environment Food and Rural Affairs
Nobel House Smith Square
London, SW1P 3JR
Email: Michelle.McQuillan@defra.gsi.gov.uk

Mr Robert Jackson
Food and Farming Directorate
Department for Environment Food and Rural Affairs
Nobel House Smith Square
London, SW1P 3JR
Email: Robert.Jackson2@defra.gsi.gov.uk

**UNITED REPUBLIC OF TANZANIA -
RÉPUBLIQUE-UNIE DE TANZANIE -
REPÚBLICA UNIDA DE TANZANÍA**

Ms Lilian Gabriel
Standards Officer
Tanzania Bureau of Standards
Process Technology Standards Development Department
Dar-es Salaam, 9524 Tanzania
Phone: +255784845500
Fax: +255222450959
Email: lyngebo@yahoo.com

Ms Hafsa Ali Slim
Standards Officer - Food and Agriculture
Zanzibar Bureau of Standards (ZBS)
P.O BOX 1136
Zanzibar
Phone: +255773168833
Email: hafsa.ali@zbs.go.tz

**UNITED STATES OF AMERICA -
ÉTATS-UNIS D'AMERIQUE -
ESTADOS UNIDOS DE AMÉRICA**

Mr Dorian La Fond
International Standards Coordinator
USDA - Agricultural Marketing Service
Stop 0247, 1400 Independence Ave. SW,
Washington DC, 20250-0247
Phone: + 1 202 690 4944
Email: Dorian.LaFond@ams.usda.gov

Ms Marie Maratos
International Issues Analyst
U. S. Department of Agriculture
U.S. Codex Office,
Food Safety & Inspection Service
1400 Independence Avenue, SW Room 4861
Washington, DC, 20250
Phone: +1-202-690-4795
Email: marie.maratos@fsis.usda.gov

VIET NAM

Mrs Van Thi Phuong An
Technician
Quality Assurance and Testing Center 3
Foods Testing Department
49 Pasteur street, District 1
Ho Chi Minh , 088
Phone: 978846156
Email: vtp-an@quatest3.com.vn

INTERNATIONAL NON-GOVERNMENTAL ORGANIZATIONS
ORGANISATIONS INTERNATIONALES NON GOUVERNEMENTALES -
ORGANIZACIONES INTERNACIONALES NO GUBERNAMENTALES

International Organization of Spice Trade Associations (IOSTA) -
Organisation internationale des Associations de commerce des épices -
Organización internacional de asociaciones de comercio de especias

Mrs Cheryl Deem
Secretariat
IOSTA
1101 17th St. NW Suite 700
Washington DC, 20036
Email: cdeem@astaspice.org

Mr Gerhard Weber
IOSTA
Email: weber@verbaendebuero.de

Mr Martin Einig
IOSTA
Email: einig@verbaendebuero.de

International Organization for Standardization-
Organisation Internationale de Normalisation -
Organización Internacional de Normalización

Ms Nagavalli. S,
Scientist C & Secretariat Support team,
ISO/TC 34/SC 7
Bureau of Indian Standards, New Delhi.
Email: fad9@bis.gov.in

National Health Federation (NHF)

Mr Michael Zazzio
National Health Federation
CA, P.O. Box 688
Monrovia , 91017
Phone: 6263572181
Fax: 6263572181
Email: michael.zazzio@gmail.com

Ms Sara Boo
National Health Federation
P.O. Box 688
Monrovia , 91017
Phone: 6263572181
Fax: 6263572181
Email: info@friskatag.net

United States Pharmacopeial Convention (USP)

Mr Karthik Iyer
Associate Director
US Pharmacopeia
Strategic Customer Development
Email: RKI@usp.org

CODEX SECRETARIAT - SECRETARIAT DU CODEX - SECRETARIA DEL CODEX

Mr Patrick Sekitoleko
Food Standards Officer
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla
00153 Roma, Italy
Tel: +39 06570 56626
Email: patrick.sekitoleko@fao.org

Mr Tom Heilandt
Secretary of the Codex Alimentarius Commission
Joint FAO/WHO Food Standards Programme
Viale delle Terme di Caracalla
00153 Roma, Italy
Phone: +39 06570 54384
E-mail: Tom.Heilandt@fao.org

Mr David Massey
Special Advisor
FAO/WHO, AGFC
Via delle Terme di Caracalla
00153 Rome, Italy
Phone: +39 0657053465
Email: David.Massey@fao.org

INDIAN SECRETARIAT - SECRÉTARIAT INDIEN - SECRETARÍA DE LA INDIA

Dr P S Sreekantan Thampi
Organising Secretary, CCSCH &
Deputy Director
Spices Board India
Chuttugunta Centre
G.T. Road, Guntur
Andhra Pradesh, India-522004
Phone: +91 0863 - 2354782, +91 9447435059.
Fax: +91 0863-2338570
E-Mail: drpssthampi2000@gmail.com,
ccschthampi@gmail.com

Mr Prathyush T P
Assistant Director
Spices Board India
NH-Bypass, Kochi, India - 682025.
Phone: +91 9400882941
E-Mail: prathyush.tp@nic.in

Mr Deep Narayan Roy
Agriculture Demonstrator
Spices Board India
NH-Bypass, Kochi, India - 682025.
Phone: +91 9435504969
E-Mail: deepagri39266@gmail.com

Ms Bhawna Jeswani
Editor
Spices Board India
NH-Bypass, Kochi, India - 682025.
Phone: +91 8589068036
E-Mail: bhawnajeswani.sb@gov.in

Appendix II

DRAFT STANDARD FOR CUMIN

(N05-2014)

(At Step 8)

1 SCOPE

This Standard applies to cumin offered for direct consumption, as an ingredient in food processing, or for repackaging if required. It excludes cumin intended for industrial processing.

2 DESCRIPTION

2.1 Product Definition

Cumin is the product prepared from "seeds[1]" of *Cuminum cyminum* L. of the Apiaceae family having reached appropriate degree of development for processing; and processed in an appropriate manner, undergoing operations such as cleaning, drying, grinding and sifting.

2.2 Styles

Cumin may be offered in one of the following styles:

a) Whole / intact

b) Cracked: broken into two or more pieces.

c) Ground: processed into powders

2.3 Varietal Types

Not applicable

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

Product as defined in Section 2.

3.2 Quality Factors

3.2.1 Moisture Content

Cumin (whole, cracked or ground) must not contain more than 10% moisture.

3.2.2 *Odour, flavour and colour*

Cumin shall have a characteristic aroma and flavour which can vary depending on geo-climatic factors/conditions. Cumin shall be free from any foreign odour or flavour and especially from mustiness. Cumin shall have a characteristic colour varying from light grey to dark brown.

3.2.3. *Classification*

Whole cumin may be classified in three classes/grades according to physical and chemical requirements as specified in Tables 1 and 2.

When ungraded, the provisions for Class/Grade III requirements apply as the minimum requirements.

3.2.4 *Physical Characteristics*

Whole cumin shall comply with the physical requirements specified in Table 1.

[1] *Botanically known as "dried fruits"*

Table 1. Physical requirements for whole cumin/cracked cumin (Allowed tolerances for defects)

Parameter	Class/Grade		
	I	II	III
Extraneous vegetable matter[1] content, maximum, % mass fraction	1	2	3
Foreign matter[2] content, maximum, % mass fraction	0.1	0.5	0.5
Mould visible, maximum, % mass fraction	1.0	1.0	1.0
Proportion of damaged/defective fruits[3], maximum, % mass Fraction	5.0	5.0	5.0
Dead insects, insect fragments, rodent contamination max % mass fraction	0.1	0.5	0.5
Insect-damaged matter[4], maximum, % mass fraction	0.5	1.0	1.0
Live insects	0	0	0
Mammalian excreta (mg/kg)	1.0	1.0	1.0

[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] Damaged, discoloured, shrivelled and immature seeds.

[4] Cumin seeds that are damaged, discoloured or showing signs of bores as a result of infestation of insects so as to affect the quality of the materials.

3.2.5 *Chemical Characteristics*

Whole, cracked and ground cumin shall comply with the chemical requirements specified in Table 2.

Table 2. Chemical requirements for whole, cracked and ground cumin

Parameter	Requirement for grade, whole and cracked cumin			Requirement for ground cumin
	I	II	III	
Total ash, % mass fraction (dry basis), Maximum	8.5	10.0	12.0	9.5
Acid-insoluble ash, % mass fraction (dry basis), maximum	1.5	3.0	4.0	1.5
Volatile oils, ml/100 g (dry basis), Minimum	2.0	1.5	1.5	1.3

Classification of "Defectives"

A lot sample that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 (except those based on sample averages), should be considered as a "defective".

3.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.2 when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number of the appropriate sampling plan. For factors evaluated on a sample average, a lot will be considered acceptable if the average meets the specified tolerance, and no individual sample is excessively out of tolerance.

4 FOOD ADDITIVES

Anticaking agents as listed in Table III of the *General Standards for Food Additives* (CODEX STAN 192-1995) may be permitted for use in ground cumin only.

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* (CODEX STAN 193-1995).

5.2 The products covered by this Standard shall comply with the maximum residue limits for

pesticides established by the Codex Alimentarius Commission.

6 FOOD 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, *Code of Hygienic Practice for Low-Moisture Foods* (CAC/RCP 75-2015) (Annex III) and other relevant Codex texts such as codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles for the Establishment and Application of Microbiological Criteria for Foods* (CAC/GL 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* (CODEX STAN 1-1985). In addition, the following specific provisions apply:

8.2 Name of the Product

8.2.1 The name of the product shall be "Cumin".

8.2.2 The name of the product may include an indication of the style/grade

8.3 Country of origin (Optional)

8.4 Inspection mark (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

Provision	Method	Principle	Type
Moisture	ISO 760:1978/ISO 939:1980 AOAC 2001.12	Titration Distillation	To be determined
Total ash	ISO 928:1997	Gravimetry	I
Acid-insoluble ash	ISO 930:1997	Gravimetry	I
Volatile oils	ISO 6571:2008	Distillation / Volumetric	I
Extraneous vegetative matter material	ISO 927:2009	Visual examination / Gravimetry	I
Foreign matter	ISO 927:2009	Visual examination / Gravimetry	I
Insect damage	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual examination	IV

Provision	Method	Principle	Type
Mammalian excreta	Macroanalytical procedure manual USFDA technical bulletin V.39 B (for whole) and AOAC 993.27 (for ground)	Visual examination (for whole) Enzymatic Detection method (For ground)	IV III
Mould damage	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual examination	IV

9.2 SAMPLING PLAN

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

SAMPLING PLAN 2
(Inspection Level II, AQL = 2.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

APPENDIX III

DRAFT STANDARD FOR DRIED THYME

(N07-2014)
(At Step 8)

1 SCOPE

This Standard applies to dried thyme offered for direct consumption, as an ingredient in food processing or for repackaging if required. It excludes dried thyme intended for industrial processing.

2 DESCRIPTION

2.1 Product Definition

Dried thyme is the product prepared from leaves/ flowers of *Thymus* spp. of Lamiaceae family reached appropriate degree of development for processing; and processed in an appropriate manner, undergoing operations such as cleaning, drying, rubbing, and milling.

2.2 Styles

Dried thyme may be offered in one of the following styles:

a) Whole / intact.

b) Crushed/rubbed: processed into varying degrees ranging from a coarse to fine crush.

c) Ground: processed into powders.

2.3 Varietal Types

All wild species and varieties or cultivars and hybrids belonging to the genus *Thymus*, which are suitable for processing.

3 ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

Product as defined in Section 2.

3.2 Quality Factors

3.2.1 Moisture

Moisture content for thyme shall be 12 % maximum.

3.2.2 *Odour, flavour and colour*

Dried thyme shall have a characteristic odour and flavour according to the chemical components of the volatile oil (such as thymol, carvacrol, and linalool), which can vary depending on geo-climatic factors/conditions. Dried thyme shall be free from any foreign odour or flavour and especially from mustiness. Dried thyme shall have a characteristic colour varying from green ash to brownish grey.

3.2.3 *Physical Characteristics*

Dried thyme shall comply with the physical requirements specified in Table 1.

Table 1. Physical requirements for dried thyme (allowable tolerances for defects)

Parameter	Requirement
Extraneous vegetable matter[1], maximum % mass fraction	0.5
Foreign matter[2] content, maximum % mass fraction	0.5
Mould visible, maximum % mass fraction	1.0
Insect damaged leaves/ flowers, maximum % mass fraction	1.0
Dead insects, Insect fragments and rodent contaminant, maximum % mass fraction	1.0
Live insects	0
Mammalian excreta maximum (mg/Kg)	1.0

[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"*.

3.2.4 *Chemical Characteristics*

Dried thyme shall comply with the chemical requirements specified in Table 2.

Table 2. Chemical requirements for dried thyme

Parameter	Requirement
Total ash, % mass faction (dry basis), maximum	12.0
Acid-insoluble ash, % mass fraction (dry basis), Maximum	3.5
Volatile oils, ml/100 g (dry basis), minimum	1.0

3.3 Classification of "Defectives"

A lot sample that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 (except those based on sample averages), should be considered as a "defective".

3.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.2 when the number of "defectives", as defined in Section 3.3, does not exceed the acceptance number of the appropriate sampling plan. For factors evaluated on a sample average, a lot will be considered acceptable if the average meets the specified tolerance, and no individual sample is excessively out of tolerance.

4 FOOD ADDITIVES

Only the anticaking agents listed in Table 3 of the *General Standard for Food Additives* (CODEX STAN 195-1995) are acceptable for use in powdered thyme, at GMP.

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* (CODEX STAN 193-1995).

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

6 FOOD 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* (CAC/RCP 75-2015) *Annex III on Spices and Dried Aromatic Herbs* and other relevant Codex texts such as codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 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 (CODEX STAN 1-1985). In addition, the following specific provisions apply:

8.2 Name of the Product

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

8.2.2 The name of the product may include an indication of the species, varietal types and the style as described in Section 2.2. In case of products consisting of blends of different *Thymus* species, the name of the product may be followed by the *Thymus* species in order of descending quantity.

8.2.3 Country of harvest/origin (optional)

8.2.4 Inspection mark (optional)

8.3 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

Table 3: Methods of Analysis

Parameter	Method	Principle	Type
Moisture	ISO 760:1978/ISO 939:1980 AOAC 2001.12	Titration Distillation	To be determined
Total ash	ISO 928:1997	Gravimetry	I
Acid-insoluble ash	ISO 930:1997	Gravimetry	I
Volatile oils	ISO 6571:2008	Distillation / Volumetric	I
Extraneous vegetable material	ISO 927:2009	Visual examination / Gravimetry	I
Foreign matter	ISO 927:2009	Visual examination / Gravimetry	I
Mammalian excreta	Macroanalytical procedure manual USFDA technical bulletin V.39 B (for whole) and AOAC 993.27 (for ground)	Visual examination (for whole) Enzymatic Detection method (for ground)	IV III
Insect damage	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual examination	IV
Mould damage	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual examination	IV

9.2 SAMPLING PLAN

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

Table 4: SAMPLING PLAN 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

Table 5: SAMPLING PLAN 2
(Inspection Level II, AQL = 2.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

APPENDIX IV

PROPOSED DRAFT STANDARD FOR BLACK, WHITE AND GREEN (BWG) PEPPERS

(N04-2014)
(At Step 5/8)

1. SCOPE

This standard applies to Black, White and Green peppers (abbreviated as BWG) offered for direct consumption, as an ingredient in food processing or for repackaging if required. It excludes BWG peppers intended for industrial processing.

2. DESCRIPTION

2.1 Product Definition

(i) BWG peppers are the berries of *Piper nigrum* L. of the Piperaceae family having reached appropriate degree of development and/or maturity for the intended product purpose.

(a) Black pepper – obtained from dried berries having unbroken pericarp.

(b) White pepper – obtained from dried berries after removing the pericarp.

(c) Green pepper – obtained from green berries by removal of moisture under controlled conditions.

(ii) Berries are treated in an appropriate manner to obtain the above products, by undergoing operations such as threshing, sieving and sifting, soaking, washing, blanching, drying or dehydrating, decorticating, grading, crushing and grinding.

2.2 Styles

BWG peppers may be offered in one of the following styles:

(a) Whole

(b) Cracked/crushed – broken into two or more pieces.

(c) Ground – processed into powders.

2.3 Varietal Types

Any commercially cultivated variety (cultivar) of *Piper nigrum* L. suitable for processing.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Composition

Product as defined in Section 2.

3.2 Quality Factors

The Quality factors for Black, White and Green peppers are determined based on the physical and chemical characteristics, as given below.

3.2.1 Odour flavour and colour

Basic Parameter	Black Pepper	White Pepper	Green Pepper
Color for all forms	Brownish to dark brownish, blackish color. Free from added coloring.	Matt grey to brownish to pale ivory white. Free from added coloring.	Characteristic green, greenish or dark greenish Free from added coloring.
Sensory property for all forms	The flavour shall have a penetrating odour and hot, biting pungent taste characteristics of black pepper excluding mouldy and rancid odours. The product shall be free from foreign odours, flavours and free from any other harmful substances.	The odour and flavour shall be characteristic of white pepper, slightly sharp and very aromatic, excluding mouldy and rancid odours. The product shall be free from foreign odours, flavours and free from any other harmful substances.	Pungent odour and flavour characteristic of green pepper, free from rancidity, mustiness, bitter taste and extraneous flavour. The product shall be free from foreign odours, flavours and free from any other harmful substances.

3.2.2 Physical characteristics

Table 1. Basic Characteristics of BWG Peppers

Parameter	Black pepper	White pepper	Green pepper
General size for whole BWG peppers	Diameter 2.5 – 7.0 mm (approx.)	Diameter 2.0 - 6.0 mm (approx.)	Diameter 2.0-6.0 mm (approx.)
Shape for whole BWG peppers	Whole with globular shape and wrinkled pericarp.	Whole with globular shape with smooth surface, slightly flattened at one pole and a small protuberance at the other.	Whole with globular shape with or without wrinkled pericarp.

3.2.3 Classification

The following three classes/grades ARE APPLICABLE TO BWG PEPPERS

(a) Class I /Grade I

(b) Class II/Grade II

(c) Class III/Grade III

Table 2. Physical characteristics for BWG whole peppers

Physical characteristics	Requirements								
	Black			White			Green		
	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III
Bulk density, (g/l), min.	550	500	400	600	600	550	NA	NA	NA
*1 Light berries, % (m/m) max.	2.0	5.0	10.0	1.0	2.0	2.0	NA	NA	NA
*2 Extraneous vegetable matter, % (m/m), max.	1.0	2.0	2.0	1.0	1.5	2.0	0.5	1.0	1.2
*3 Foreign matter, % (m/m), max.	0.1	0.5	0.5	0.1	0.5	0.5	0.1	0.5	0.5
Black berries/corns % (m/m), max.	NA	NA	NA	5.0	7.5	10.0	Nil	Nil	5.0
Broken berries, % (m/m), max.	NA	NA	NA	2.0	3.0	3.0	1.0	3.0	10.0
Mouldy Berries % (m/m), max.	1.0	2.0	3.0	1.0	2.0	3.0	Nil	1.0	2.0
Insect defiled berries /Corns, % (m/m), max.	1.0	1.0	2.0	1.0	1.0	2.0	0.5	1.0	2.0
Mammalian or/and other excreta, (mg/kg), max.	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0
*4 Pinheads for black pepper, % (m/m), max.	1.0	2.0	4.0	NA	NA	NA	NA	NA	NA

NA – NOT APPLICABLE

[1]* *Light berries* (in Black and White peppers only) - Generally immature berries without kernel with an apparent density lower than 0.30g/mL or 300 g/L

[2]* *Extraneous vegetative matter* - Vegetative matter associated with the plant from which the product originates - but is not accepted as part of the final product". Light berries, pinheads or broken berries are not considered as extraneous matter.

[3]* *Foreign matter* - 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

*[4] *Pinheads* – Developed from unfertilized flowers, berries with a diameter of less than 2 mm with more angularity than

Physical characteristics	Requirements								
	Black			White			Green		
	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III
normal berries, they have soft texture (collapse under heavy pressure) and have less odour and flavour than pepper berries.									

3.2.4 Chemical characteristics

Table 4. Chemical characteristics for BWG whole peppers

Chemical characteristics	Requirements						
	Black			White			Green
	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III	Class I/ Grade I	Class II/ Grade II	Class III/ Grade III	
Moisture content, % (m/m), max.	12.0	12.0	13.0	12.0	12.0	13.0	12.0
Total ash, % (m/m), max, on dry basis.	6.0	7.0	7.0	3.5	4.0	4.0	5.0
Nonvolatile ether extract, % (m/m) min, on dry basis.	7.0	7.0	6.0	6.0	6.0	6.0	0.3
Volatile oils[1], % (ml/100 g) min, on dry basis.	2.0	1.5	1.0	1.5	1.5	1.0	1.0
Piperine content, % (m/m), min, on dry basis.	3.5	3.0	2.0	4.0	3.5	3.0	NA*
Acid-insoluble ash, % (m/m) max, on dry basis.	1.5	1.5	1.5	0.3	0.3	0.3	0.3

*NA – NOT APPLICABLE

Table 5. Chemical characteristics for BWG ground peppers

Chemical characteristics	Requirements	
	*Ground black pepper	*Ground white pepper
Moisture content, % (m/m), max.	12.0	13.0
Total ash by mass, % (m/m), on dry basis, max.	6.0	3.5
Non-volatile ether extract, % (m/m) ,on dry basis, min.	6.0	6.0
Volatile oil[1] , % (ml/100g), on dry basis, min.	1.0	0.7
Crude fibre, insoluble index, % (m/m) on dry basis, max.	17.5	6.5
Piperine, % (m/m), on dry basis, min.	3.5	4.0
Acid insoluble ash, % (m/m) on dry basis, max.	1.2	0.3
*Ground peppers include all its forms as per 2.2(b).		

[1]The volatile oil content should be determined immediately after grinding

3.3 Classification of “Defectives”

A container sample that fails to meet one or more of the applicable quality requirements, as set out in Section 3.2 (except those based on sample averages) should be considered as a “defective”.

3.4 Lot Acceptance

A lot should be considered as meeting the applicable quality requirements referred to in Section 3.2 when the number of “defectives”, as defined in Section 3.3, does not exceed the acceptance number (c) of the ap-

propriate sampling plan. For factors evaluated on a sample average, a lot will be considered acceptable if the average meets the specified tolerance, and no individual sample is excessively out of tolerance.

4. FOOD ADDITIVES

Table 6 - Food Additive

Food Additive	Black Peppers	White Peppers	Green Peppers
Sulphur dioxide, (INS 220	None permitted	None permitted	* 150 (mg/kg), max.
Technological Justification – as “preservative”			
* As per CODEX STAN 192- 1995 for food category 12.2.1 (herbs &spices) sulfites content ,including sulphur dioxide (i.e. INS 220-225-227- 228 and INS 539)			

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* (CODEX STAN 193-1995).

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

6. FOOD 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 *Code of Hygienic Practice for low moisture foods* CAC/*RCP 75 - 2015 Annex III* and other relevant Codex texts, such as codes of hygienic practice and codes of practice.

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 for Foods* (CAC/GL 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* (CODEX STAN 1- 1985) In addition, the following specific provisions apply:

8.2 Name of the Product

8.2.1 The name of the product shall be “Black Pepper” (pepper corn), “White Pepper” or “Green Pepper”,

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

8.3 Country of origin (optional)

8.4 Commercial Identification

- Class/ Grade
- Variety (optional)

8.5 Inspection mark (optional)

8.3 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

Table 7. Methods of Analysis

Sl. No.	Provision	Method	Principle	Type
1	Bulk density	ISO 959-1:1998 ISO 959-2:1998	Separation by density	IV
2	Light berries	ISO 959-1:1998	Flotation	IV
3	Extraneous vegetable matter and foreign matter	ISO 927:2009	Visual examination	IV
4	Black berries	Physical separation and weighing ISO 959-2:1998	Visual examination	IV
5	Broken berries	Physical separation and weighing ISO 959-2:1998	Visual examination	IV
6	Mouldy berries	Macroanalytical procedure manual USFDA technical bulletin V.39 B	Visual examination	IV
7	Insect defiled berries	Macroanalytical procedure manual USFDA technical bulletin V.39 B	Visual examination	IV
8	Pinheads or broken berries	Physical separation and weighing ISO959-1:1998	Visual examination	IV
9	Mammalian and/ or other excreta	i) Macroanalytical procedure manual USFDA technical bulletin V.39 B (For Pepper Whole) ii) AOAC 993.27 (for ground pepper)	Visual examination(For whole pepper) Enzymatic Detection method (For ground pepper)	IV III
10	Moisture content	AOAC 986.21 ISO 939:1980	Distillation	I
11	Total ash	AOAC 941.12 ISO 928:1997	Gravimetry	I
12	Non-volatile ether extract	AOAC 940.29 ISO 1108	Soxhlet extraction	I
13	Volatile oils	AOAC 962.17 ISO 6571:2008	Distillation	I
14	Piperine content	AOAC 987.07 ISO 5564	Spectrophotometry	I
15	Acid- Insoluble ash	AOAC 941.12 ISO930:1997	Gravimetry	I
16	Crude Fiber	AOAC 920.169 ISO 5498	Gravimetry	I

9.2 SAMPLING PLANS

Sampling Plans

The appropriate inspection level is selected as follows:

Inspection level I - Normal Sampling

Inspection level II - Disputes, (Codex referee purposes sample size), enforcement or need for better lot estimate

Table 8 - Sampling Plan 1

(Inspection Level I, AQL = 6.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	6	1
4,801 - 24,000	13	2
24,001 - 48,000	21	3
48,001 - 84,000	29	4
84,001 - 144,000	38	5
144,001 - 240,000	48	6
more than 240,000	60	7
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	6	1
2,401 - 15,000	13	2
15,001 - 24,000	21	3
24,001 - 42,000	29	4
42,001 - 72,000	38	5
72,001 - 120,000	48	6
more than 120,000	60	7
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	6	1
601 - 2,000	13	2
2,001 - 7,200	21	3
7,201 - 15,000	29	4
15,001 - 24,000	38	5
24,001 - 42,000	48	6
more than 42,000	60	7

Table 9: Sampling Plan 2

(Inspection Level II, AQL = 2.5)

NET WEIGHT IS EQUAL TO OR LESS THAN 1 KG (2.2 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
4,800 or less	13	2
4,801 - 24,000	21	3
24,001 - 48,000	29	4
48,001 - 84,000	38	5
84,001 - 144,000	48	6
144,001 - 240,000	60	7
more than 240,000	72	8
NET WEIGHT IS GREATER THAN 1 KG (2.2 LB) BUT NOT MORE THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
2,400 or less	13	2
2,401 - 15,000	21	3
15,001 - 24,000	29	4
24,001 - 42,000	38	5
42,001 - 72,000	48	6
72,001 - 120,000	60	7
more than 120,000	72	8
NET WEIGHT GREATER THAN 4.5 KG (10 LB)		
Lot Size (N)	**Sample Size (n)**	**Acceptance Number (c)**
600 or less	13	2
601 - 2,000	21	3
2,001 - 7,200	29	4
7,201 - 15,000	38	5
15,001 - 24,000	48	6
24,001 - 42,000	60	7
more than 42,000	72	8

APPENDIX V

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR DRIED OR DEHYDRATED GINGER

Introduction

Ginger (*Zingiber officinale* Roscoe) is a flowering plant widely used as a spice in most part of the world. It is grown in West Africa, Asia and the Caribbean. Ginger is widely cultivated in the tropical regions as a commercial crop, with world production estimate of 1.6 million tonnes.

1. Purpose and the scope of the standard

The scope of the work is to establish a worldwide quality standard for whole dried or dehydrated ginger, split dried ginger, and (ground) powdered ginger obtained from the rhizome of *Zingiber officinale* to facilitate international trade and consumer protection.

The objective of the standard is to consider the essential quality characteristics of dried ginger 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

Due to the growing trend of worldwide dried ginger 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 ginger is not limited to any particular region and hence justifies the elaboration of an international standard commensurate with the dried or dehydrated ginger ginger's true standing as an increasingly valuable worldwide commodity. In addition, the drafting of a Codex standard for dried ginger 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 ginger is used for culinary purposes as well as in confectionery industry. It is also used as a spice in many culinary products ranging from bakery products (ginger bread, ginger cake, ginger biscuits), to ginger tea, ginger ale, ginger beer all of which are of importance in the world food industries.

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 most relevant items which may be considered are related to:

- Establish the minimum requirements of dried or dehydrated ginger which shall be complied with, independently from the quality parameters and other requirements regardless of class.
- Define the categories to classify dried or dehydrated ginger in accordance with its characteristics.
- Establish the tolerance as regards quality and size that may be permitted of dried or dehydrated ginger 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 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 ginger 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

Dried Ginger is an important export product that plays significant role as source of income and employment for its producing countries. China, India, Netherlands, Thailand, Ethiopia, Nigeria are currently among the countries most involved in ginger production globally, detailed statistics of its world production import and export are shown in Table 1-5.

Table 1: World-wide Production Data

Year	Production (in Tonnes)
2008	1,596,625.00
2009	1,643,678.25
2010	1,692,234.62
2011	2,034,429.00
2012	2,095,056.00

(Source: FAOSTAT)

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

There exist various national and international standards for dried ginger. Some of them are given below:

- ISO 1003:2008, Spices -- Ginger (*Zingiber officinale* Roscoe.) – Specification
- ESA quality minima document Rev 4.
- Nigerian standard, NIS 409:2007 “Standard for Ginger (Whole and Ground)”
- Indian Standard, IS 1908 (2008), “Spices and Condiments, ginger, Whole and ground, Specification”,
- Malaysian standard, MS 718: 1981 “Specification for ginger, whole and in pieces”

The lack of harmonized and internationally accepted standards is detrimental to the trade and it leads to fraudulent practices and rejections of exports. Therefore, development of a Codex standard will allow the different stakeholders to harmonize their different requirements to facilitate international trade.

(c) International or regional market potential

The import of dried or dehydrated ginger by most countries is increasing. Japan is currently the largest importer of dried ginger with 65459 tonnes according to the current statistic of FAOSTAT. China is the largest exporter globally with 408848 tonnes, Nigeria ranks 6th exporting 6653 tonnes of dried ginger according to FAOSTAT.

Pattern of International Trade

Table 2: World-wide Export Data

Year	Export Quantity (in Tonnes)	Value (in US $1000)	Growth rate in export quantity * (%)
2009	494,044	411,999	
2010	458,514	661,043	-4.2
2011	555,248	668,334	21.7
2012	104,089	166,268	-71.9 #
2013	569,604	647,265	23.3

Note. * % Variation against quantity in 2009, # exceptional value (Source: ITC Geneva)

Table 3: World-wide Import Data

Year	Import Quantity (in Tonnes)	Value (in US $1000)
2009	459,217	391,627
2010	440,068	601,282
2011	559,053	669,620
2012	128,917	540,502
2013	566,357	714,183

(Source: ITC Geneva)

Table 4. Import Statistics of Dried ginger

Rank	Area	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	Japan	65459	67	123483	66	1886
2	United States of America	52521	125	68076	141	1296
3	Pakistan	60112	15	51033	17	849
4	Netherlands	30189	151	45529	160	1508
5	Bangladesh	47939	17	38061	21	794
6	Germany	10841	223	38036	195	3509
7	United Arab Emirates	26587	57	30884	72	1162

Source FAOSTAT

Table 5. Export Statistics of Dried ginger

Rank	Area	Quantity (tonnes)	Flag	Value (1000 $)	Flag	Unit value ($/tonne)
1	China, mainland	408848	18	409484	20	1002
2	India	29747	61	55356	42	1861
3	Netherlands	20322	160	38610	163	1900
4	Thailand	24391	49	26591	60	1090
5	Ethiopia	7220	15	23586	8	3267
6	Nigeria	6652	14	18463	10	2776
7	Brazil	6668	85	7369	96	1105
8	Germany	1455	245	7146	229	4911
9	China, Province	2103	56	5373	48	2555
10	Nepal	17215	4	4839	8	281
11	Peru	2214	53	4363	52	1971
12	Lithuania	2526	111	4344	108	1720

Source FAOSTAT

(d) Amenability of commodity to standardization

The characteristics of Dried or dehydrated ginger 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 commodity standard covering dried ginger as spices in international trade considering that globally, dried ginger represents 15-16% of the tonnage of spices imported from 1996 to 2000 according to FAO. The proposed standard will heighten consumer protection and facilitate dried ginger trade by establishing an internationally agreed quality standard.

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

A single standard for dried ginger will cover forms of dried ginger traded worldwide. The varieties of dried ginger like, split dried ginger, and (ground) powder of dried ginger and its products will be examined under this individually.

(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 ginger are:

- ISO international standard ISO 1003:2008 specifies requirements for dried ginger (*Zingiber officinale* Roscoe)

5. Relevance to the Codex strategic objectives

The proposal is in line with the Strategic Vision Statement of the Strategic Plan 2014 - 2019, in particular, Objectives 1.1, 1.3, 2.3 and 3.1 and aims at setting up internationally accepted minimum quality requirements of dried ginger for human consumption with the purpose of protecting the consumer's health and achieving fair practices in food trade. It also contributes to fair practices in trade

wherein the farmers will be able to assess their produce with reference to the quality standards thereby empowering them to realize more monetary values.

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

This proposal is for a new Codex Standard on Dried Ginger has a relationship with *Standard for Ginger* (CODEX STAN 218-1999) which deals with fresh ginger.

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.

The technical inputs from ISO, American Spice Trade Association, European Spice Association and World Spice Organization shall be welcomed as they have already done work related to the subject. Also ISO standards can be used as a step process to frame the codex standards for dried ginger.

9. Proposed timeline for completion of the new work

DATE	**ADVANCE AND PROCEDURES**
3rd CCSCH	For the consideration of new work by the 3rd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2019	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX VI

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR DRIED OR DEHYDRATED CHILLI (*Capsicum annuum* L. and *Capsicum frutescens* L.) AND PAPRIKA (*Capsicum annuum* L.)

Introduction

Chilli and paprika, the most consumed spices in the world, belong to the genus *Capsicum* under *Solanaceae* family. Chilli is said to be originated in South America and it is widely grown in the tropical and sub-tropical regions of the World. *Capsicum annuum, C. frutescens, C. chinense, C. baccatum and C. pubescens* are the important species grown and used for human consumption. Most commercially cultivated cultivars of Chilli and paprika in the world are *Capsicum annuum L. and Capsicum frutescens L.* Commercially important part is the fruit.

Capsicum fruits have been part of the human diet for at least 1,000 years. They are rich sources of vitamin C (Ascorbic acid) and vitamin A. Pungent types of dried chilli, are used as a condiment for seasoning. The dried fruits are ground and used as an ingredient in curry powder. The pungency is mainly due to the presence of chemical compounds collectively called capsaicinoids. Its extract, capsaicin is used to impart pungency in food.

Paprika has high colour and very less pungency, and is used in ground form in food applications. They are grown and traded for the market importance for their colouring pigments present in them. The usage of natural colours in food is beneficial in terms of consumer health when compared to synthetic food colours.

The purpose of the work is to develop a world-wide standard for dried or dehydrated chilli and paprika by considering their identity and quality characteristics in view of international trade.

1. Purpose and scope of the standard

The scope of this work is to develop worldwide standard for:

a) Dried or dehydrated chilli obtained by drying the fruits of *Capsicum annuum L.or Capsicum frutescens L.* of *Solanaceae* family presented in whole, cracked, crushed, ground or powdered forms to consumers after appropriate processing.

b) Dried or dehydrated paprika [*Capsicum annuum* L.] of the *Solanaceae* family to be supplied as ground paprika to consumers after appropriate processing.

The purpose of the standard is to consider the identity and quality characteristics of chilli as whole, cracked, crushed, ground or powdered and as ground paprika, in the framework of international trade.

2. Relevance and timeliness

Chilli and paprika are grown in all five continents, although the main producers are India and China, which account for approximately 50% of global output.

Chilli is an important commodity widely used in food. It is one of the oldest traded commodities in the world. India, China, Peru etc. are the pioneers in the supply of Chilli to the world market. Major importers of chilli are Malaysia, United States of America, Thailand, Sri Lanka, Bangladesh, Mexico, Spain, Germany, Indonesia, Japan, Republic of Korea, Netherlands, United Arab Emirates and United Kingdom. The countries with demand for paprika are mainly in the American and European continents, accounting for 66% of global imports, led by the United States, Malaysia, Spain, Germany, Japan, Sri Lanka and Mexico. The globalization of the economy, the increase in migratory flows and international tourism, and the growth of world food trade have increased the trade in spices. The ethnic consumption has not only facilitated trade in spices that accompany traditional dishes but also has boosted trade.

In view of the increased production and global trade, there is a need for an internationally harmonized standard for dried or dehydrated chilli and Paprika. The global demand for chilli and paprika is increasing continuously.

The proposed standard would deal with all quality aspects for dried chilli and paprika including wholesomeness, hygiene aspects, moisture content, size, ash content, pungency, colour value and foreign matter. The standard, thereby provides a frame of reference agreed by worldwide consensus among countries which produce market and consume this commodity.

Moreover, the development of a Codex standard for dried or dehydrated chilli in whole, cracked, crushed, ground or powdered forms and dried or dehydrated paprika in ground form will help to protect consumer health and to promote fair trade practices in accordance with current international agreements.

3. Main aspects to be covered

The main aspects of the product to be covered in the standard are the minimum quality and safety requirements to protect consumer's health and to ensure fair practices in food trade. The standard will therefore include:

- Product Definition - Defining the product as “dry and/or dehydrated, whole or ground Chilli and ground Paprika including reference to the genus and the species and/or varietal types if necessary.
- Styles - Listing/describing the different forms of presentation including sizes of whole, pieces and/or powder in chilli and powder in paprika tolerances allowed.
- Classes/ Quality Criteria - Including provisions for colour, pungency, moisture content, ash content, foreign matter and classification of defectives vis-à-vis lot acceptance based on the defects allowed.
- Quality tolerances.
- Provisions for the labelling and marking of the product in accordance with the *General Standard for the Labelling of Pre-packaged Foods*.
- Provisions on contaminants that refer to the Codex General Standard for Contaminants and Toxins in Food and Feed.
- Hygiene provisions that refer to the Recommended International Code of Practice – General Principles of Food Hygiene.
- Provisions for pesticides residues, labelling and packaging with reference to pre-existing Codex documents.
- References to Methods of Analysis and Sampling.

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

General Criterion

Consumer protection from the point of view of health, food safety, ensuring fair practices in the food trade and taking into account the identified needs of developing countries.

The proposed new standard will meet this criterion by:

- Promoting consumer protection and prevention of fraudulent practices.
- Providing greater assurance of the quality of the product to meet consumer needs and minimum requirements of food safety.
- Arriving at levels of standardization based on the properties of different varieties to meet industrial and consumer needs with exactness and credibility

The development of the standard would be beneficial to many countries in general and more particular in the case of developing countries.

Criteria Applicable to Commodities

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

The worldwide production of chilli including paprika accounts to nearly 3,352,160 tonnes from 1,989,660 hectares of land during 2012 (FAOSTAT) with more than 30% growth in a decade span and it is on the increase. India, China, Peru, Bangladesh, Pakistan, Thailand, Myanmar, Ghana, Ethiopia, etc. are the major Chilli producing countries in the World. India, China, Peru, Spain, Mexico, Germany, Tunisia, Netherlands, etc. are the major chilli exporting countries in the world. United States of America, Malaysia, Spain, Sri Lanka, Germany, Japan, Mexico, Republic of Korea, United Kingdom, Thailand, Bangladesh, etc. are the major importers of Chilli in the world. Demand for chilli including paprika is bound to go up in different national and international markets.

Table 1: World production of chilli including paprika and land used		
Year	**Quantity (in Metric Tonnes)**	**Area harvested (in hectare)**
2008	3,123,440	1,918,840
2009	3,035,150	2,035,260
2010	3,053,540	1,974,850
2011	3,244,250	1,976,350
2012	3,352,160	1,989,660

Source: FAOSTAT

Table 2: Worldwide Export & Import of Chilli including paprika				
YEAR	**EXPORTS**		**IMPORTS**	
	Quantity (in Metric Tonnes)	**Value (1000 $)**	**Quantity (in Metric Tonnes)**	**Value (1000 $)**
2007	503,182	856,838	523,102	912,456
2008	510,566	957,952	521,479	1,007,030
2009	532,418	933,670	556,037	970,186
2010	533,970	983,465	548,420	1,053,140
2011	536,163	1,317,220	546,853	1,308,300

Source: FAOSTAT

Table 3: Production of Chilli including Paprika in countries in 2012 (Top 15 countries)		
S.No	**Country**	**Quantity (in Metric Tonnes)**
1	India	1,299,940
2	China	290,000
3	Peru	175,000
4	Bangladesh	172,000
5	Pakistan	150,000
6	Thailand	145,000
7	Myanmar	128,000
8	Ghana	100,000
9	Ethiopia	100,000
10	Vietnam	93,000
11	Benin	67,760
12	Egypt	65,000
13	Nigeria	62,000
14	Mexico	60,000
15	Romania	48,500

Source: FAOSTAT

Table 4: Export of Chilli including paprika from countries in 2011 (Top 15 countries by value)			
S.No	**Country**	**Quantity (in Metric Tonnes)**	**Value in 1000 $**
1	India	260,485	497,052
2	China	98,479	282,628
3	Peru	48,471	131,820
4	Spain	34,879	115,589
5	Mexico	11,007	34,975
6	Germany	5,480	34,410
7	Tunisia	17,451	29,255
8	Netherlands	3,954	17,611
9	United States of America	4,802	15,338
10	France	1,386	12,012
11	Hungary	2,342	11,312
12	Republic of Korea	2,098	10,387
13	Chile	1,650	9,689
14	Serbia	2,153	9,576
15	Belgium	2,130	9,417

Source: FAOSTAT

Table 5: Import of Chilli including paprika into countries during 2011 (Top 15 countries by value)			
S.No	**Country**	**Import (in Metric Tonnes)**	**Value in 1000 $**
1	United States of America	109,937	278,490
2	Malaysia	54,296	135,581
3	Spain	38,141	95,141
4	Sri Lanka	42,782	82,523
5	Germany	20,228	76,416
6	Japan	12,252	60,133
7	Mexico	24,693	55,196
8	Republic of Korea	16,309	44,833
9	United Kingdom	8,723	35,646
10	Thailand	36,970	25,059
11	Netherlands	9,819	24,179
12	Canada	6,308	23,062
13	Bangladesh	13,177	21,866
14	Indonesia	19,988	18,186
15	France	4,054	17,787

Source: FAOSTAT

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

The import of dried chilli including paprika take place for many applications and dried chilli undergoes various operations such as grinding, cracking and powdering and dried paprika as ground based on specific objectives. Hence the trade in dried chilli including paprika takes shape based on applications and customer requirement. However trade in chilli and paprika is based on producing countries and importing country's mutually agreed conditions in terms of grade and specifications.

The ISO has given specifications for dried chilli and capsicums, whole or ground (powdered) (ISO 972:1997). Producing countries viz. India (IS 2322: 2010), Thailand (TAS 3001:2010), Malaysia etc. have developed

their own quality specifications for dried chillies. The Regional standards viz., *CRS 35: 2010 - Specification for spices and sauces* implemented by CARICOM Regional Organization for Standards and Quality are associated with the standards for chilli. The trade associations viz American Spice Trade Association (ASTA) has developed ASTA's Cleanliness Specification for spices, seeds and herbs including dried chillies for imports into United States of America. The European Spice Association has brought out Quality Minima Document of ESA for spices including dried chillies.

There exists an international standard for chili peppers as well as work undertaken by other organizations [International Standard ISO/FDIS 7540 Ground paprika (*Capsicum annuum* L.)], a Codex standard is considered necessary and timely in order to integrate criteria into a single internationally acceptable standard. This would reduce possible barriers to trade and would provide a comprehensive legal framework stipulating the minimum internationally acceptable requirements for paprika.

Hence, it would be preferred that the trade in dried or dehydrated chilli / Paprika are carried under an International criteria based on Codex Standard.

a) **International or regional market potential**

In the international exchange of spices, the first place is taken by peppers, followed by mustard and the complex *Capsicum*, which includes paprika and chili, with a 4% annual growth rate. (Global trade in - 090420 NCM 2011 and 090421/090422 NCM 2012 - Fruits of the *Capsicum* or *Pepper*, dried, crushed or ground, as of 2008: 860 million dollars/year and a 4% annual increase. Source: http://www.smartexport.com)

In world exports, the complex *Capsicum* has an average annual growth rate of 5% between 2009-2013 accounting for an average of 1.121 billion dollars a year. (Global exports of - 090420 NCM 2011 and 090421/090422 NCM 2012 - Fruits of the *Capsicum* or *Pimentón* genera, dried, crushed or ground. Source: Comtrade).

On the development of trade, the following data are observed[1]:

Table 1: Major countries importing fruits of the *Capsicum* or *Pimenta* genera, dried, crushed or ground - In USD millions (Source: http://comtrade.un.org/data/)

Ranking	Importing Country	2009	2010	2011	2012	2013	2009 / 2013 Average	Straight-through Rate
1	United States	202	224	278	305	287	259	42%
2	Malaysia	95	123	136	101	85	108	-10%
3	Spain	68	63	95	85	73	77	8%
4	Germany	63	65	79	66	71	69	12%
5	Japan	46	50	60	56	61	55	31%
6	Sri Lanka	43	44	82	38	49	51	15%
7	Mexico	63	55	55	27	45	49	-29%
	Grand total	**915**	**1,023**	**1,278**	**1,151**	**1,106**	**1,094**	**21%**

Table 2: Major countries exporting fruits of the *Capsicum* or *Pimenta* genera, dried, crushed or ground (Source: http:// comtrade.un.org/data/)

Ranking	Exporting Country	2009	2010	2011	2012	2013	2009 / 2013 Addition	2009 / 2013 Average	Straight-through Rate
1	India	250	348	496	532	349	1,976	395	40%
2	China	213	191	283	264	249	1,200	240	17%
3	Spain	105	90	116	130	120	562	112	14%
4	Peru	103	97	131	111	91	534	107	-12%
5	Germany	22	28	39	33	40	161	32	78%
6	Mexico	15	23	35	22	46	141	28	195%

[1] COMTRADE is a statistical basis consisting of the contributions that each country makes. To date many countries have not updated their 2014 information, therefore data are updated as of 2013, which is the last available year that is complete.

	Grand total	**928**	**973**	**1,308**	**1,286**	**1,114**	**5,608**	**1,122**	**20%**

Table 3: Yields of countries exporting fruits of the *Capsicum* or *Pimentón* genera, dried, crushed or ground - In USD millions (Source: http://www.smartexport.com)

Exporting Country	2009/2013 Average	Share in Total Exports	Average Annual Growth Rate	Straight-through Growth Rate
Grand total	**1,122**	**100%**	**5%**	**20%**
India	395	35%	9%	40%
China	240	21%	4%	17%
Spain	112	10%	3%	14%

Exports of capsicum for paprika and paprika correspond to subheading 09.04.2 "Fruits of the genus *Capsicum* dried, crushed or ground" of the 2011 Mercosur Common Nomenclature and subheadings 09.04.21 "- Dried, not crushed or ground", 09.04.22 "Crushed or ground" of the 2012 Mercosur Common Nomenclature.

As illustrated in the above tables, there has been a remarkable increase in the international trade for chilli and paprika in the recent years.

b) **Amenability of commodity to standardization:**

The characteristics of dried or dehydrated chilli and paprika from its cultivation to harvest, the characteristics of the fruit, cultivar varieties, composition, quality and packaging all the parameters lend adequate for conducive to the establishment of an appropriate standard for the commodity. There are existing standards in different counties as well as ISO, which indicates amenability to standardization through harmonization.

c) **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 chilli or dried ground paprika. The new work will strengthen consumer protection and will facilitate trade in chillies and paprika by establishing an internationally agreed and recognized quality standard.

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

This standard will be a general standard for dried or dehydrated chilli and paprika to cover the relevant aspects concerned. But, it will include all the different forms of dried or dehydrated chilli such as whole, cracked, crushed, ground or powdered and ground form for paprika.

e) **Work already undertaken by other international organization in this field and/or suggested by the relevant international intergovernmental bodies**

The International organization for Standardization (ISO) has dealt with the standards for dried chilli (ISO 972: 1997). There are national standards for paprika and also the International Standard ISO/FDIS 7540 Ground Paprika (*Capsicum annuum* L.). The existing standards could be taken into consideration as a step process to develop Codex Standards for dried or dehydrated chilli and ground paprika.

"The UNECE Standards FFV-61 concerning the marketing and commercial quality control of Chilli Peppers (fresh)" could also be taken into consideration.

5. Relevance to the codex strategic objectives

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

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

The work will take into consideration:

- *Standard for Chilli Peppers* (CODEX STAN 307-2011), which deals with fresh chilli.
- *General Principles of Food Hygiene* (CAC/RCP 1-1969); *General Standard for Labelling of Pre Packaged Foods* (CODEX STAN 1-1985); *Code of Hygienic Practice for Low-Moisture Foods* (CAC/RCP 75-2015) (Annex III); *Methods of Analysis and Sampling* (CODEX STAN 234-1999); *Principles and Guidelines for the Establishment and Application of Microbiological Criteria Related to Foods* (CAC/GL 21-1997); Maximum Residue Limits for pesticides adopted by Codex for *'Spices'.*

7. Identification of 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

ISO standards can be used as a step process to frame the codex standard for dried or dehydrated chilli and paprika.

The technical inputs from ASTA, ESA, ISO and UNECE will be welcomed as they have already done work related to the subject.

9. Proposed Time Schedule

The following tentative time schedule is proposed, subject to the decisions taken during the Second Session of Codex Committee on Spices and Culinary Herbs:

DATE	**ADVANCE AND PROCEDURES**
3rd CCSCH	Consideration of new work by the 2nd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2018	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX VII

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR DRIED AND DEHYDRATED GARLIC

Introduction

*Allium sativum*L., commonly known as garlic, is a species in the onion genus, *Allium*. Garlic is one of the most popular spices in the world. The bulb or subterranean reserve structure derived from leaves is the plant part used. It has a strong characteristic odour and taste. Garlic is a perennial plant of the lily family. It grows to a height of about 60 cm. It has short, flat upright leaves of 15 - 30 cm. The tall single flower stem bears spherical head of pale pink or greenish-white blooms, often mixed with tiny bulbils. The subterranean white-skinned bulb or corn is subdivided into numerous 'cloves'.

Garlic, originated in Central Asia, is widely cultivated all over the world; the major producers being Bangladesh, Egypt, Ethiopia, India, Myanmar, People's Republic of China, Republic of Korea, Russia, United States of America and Ukraine. It features in the mythology, religion and culture of many nations. In Europe, garlic has been commonly used since the days of the Roman Empire, and it was extensively used in India and East Asia even before the arrival of Europeans.

Raw garlic is used in the preparation of garlic powder, toasted garlic, garlic flakes, garlic salt, garlic vinegar, garlic cheese croutons, garlicked potato chips, garlic bread, garlicked bacon etc. It is also used for the preparation of spray dried garlic products and for liquid garlic preparations. It is widely used in a multitude of salads, spring rolls, soups and Mediterranean sauces. On heating, the pungency and strong odour of garlic get lost and the aroma becomes more subtle and less dominant, harmonizing perfectly with ginger, pepper, chillies and many other spices. Therefore, it is an essential ingredient for nearly every cuisine of the world.

The purpose of the work is to develop a world-wide quality standard based on physico-chemical characteristics of garlic in the point of view of international trade.

1. The Purpose and Scope of the Standard

The scope of the standard will cover dried or dehydrated garlic in whole, crushed, powdered, ground, chopped and sliced forms, obtained from the bulb of *Allium sativum* L.

2. Relevance and Timeliness

The need to have an international standard for garlic arises from the fact that the crop is grown in many regions of the world and especially as a commercial crop in developing countries in fragmented areas by marginal farmers. It is globally traded and is not limited to any particular region. Therefore, it is necessary to establish standard covering quality characteristics of garlic. The major garlic producing countries are China, India, Republic of Korea, European Union etc. China, Argentina, Spain, Netherlands, Egypt, Mexico, France, United States of America, Italy, Chile were the major exporting countries as per 2011 FAOSTAT data. Indonesia, Brazil, Vietnam, Malaysia, United States of America, Thailand, Russian federation, Pakistan, United Arab Emirates, Bangladesh, were the major importing countries as per 2011 FAOSTAT data.

The current and historical significance of garlic to producers, traders and consumers warrants the development of a Codex standard based on its physical and chemical characteristics. This will overcome discrepancies among the various national standards and different trade association standards and in still transparency in marketing from producing countries and re-exporting centres. The proposed standard will be based on the principles of consumer protection and fair trade practices.

3. Main aspects to be covered

The main aspects of the product to be covered in the standard are the minimum quality and safety requirements to protect consumer's health and to ensure fair practices in food trade which includes:

- Establishing the minimum quality requirements, maturity requirements, cleanliness specifications and defect action levels as per the products
- Defining the categories to classify the product in accordance with the characteristics; taking into account the whole, crushed, sliced, powdered, ground, dried or dehydrated form including a reference to the genus and the species.
- Provisions for basic composition and other permitted ingredients.

- Provisions to be considered related to the uniformity of the packaged product and the packaging used.
- Provisions for the labelling and marking of the product in accordance with the general standard for the labelling of pre-packaged foods.
- Establishing physical and chemical quality parameters like moisture, volatile oil, fibre, total ash etc required for categorizing the product into different classes.
- Specifying the acceptable levels of defectives, lot acceptance and other quality tolerances like extraneous matter.
- Provisions for hygiene with reference to the recommended International Code of Practice for hygiene and general principles of food hygiene, contaminants, pesticide residues and method of analysis.
- Provisions concerning tolerances with respect to quality and size allowed in each package for garlic not satisfying the requirements of that class.

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

General criterion

Consumer protection from the point of view of health, food safety, ensuring fair practices in the food trade and taking into account the identified needs of developing countries.

The proposed new standard will meet this criterion by:

(a) Promoting consumer protection and the prevention of fraudulent practices.

(b) Providing greater assurance of the quality of the product to meet consumer needs and the minimum requirements for food safety.

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

In addition, the elaboration of the standard would be to the benefit of many countries in general and more particular in the case of developing countries, as the developing countries are the major producers, exporters, and consumers of garlic.

Criteria applicable to commodities

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

According to the production data from FAOSTAT for the year 2012, the total production of garlic was nearly 24,836,877.00 tonnes of which about 80% is from China. Egypt, India, Republic of Korea and Russia are the other countries leading in garlic production. The total export of garlic in 2012 accounts to 1,755,615 tonnes. The major exporters are China (mainland), Argentina and Spain. Indonesia and Brazil have the major share in the garlic import which comes to 1,631,587 tonnes in 2012.

Table 1: Production Data

Production Data					
Year	2008	2009	2010	2011	2012
Quantity (in Tonnes)	22,790,482.80	22,033,858.50	22,541,421.10	23,710,768.21	24,836,877.00

(Source: FAOSTAT)

Table 2: Export Data

Year	Export Quantity (In Tonnes)	Export Value (in US $ 1000)
2007	1,758,982	1,325,353
2008	1,829,001	1,072,576
2009	1,910,071	1,554,057
2010	1,681,948	3,038,623
2011	1,975,108	2,834,780
2012	1,755,615	1,989,858

(Source: FAOSTAT)

Table 3: Import Data

Year	Import Quantity (In Tonnes)	Import Value (in US $ 1000)
2007	1,714,183	1,233,038
2008	1,924,913	1,182,667
2009	1,769,325	1,276,821
2010	1,656,908	2,325,483
2011	1,850,917	2,355,292
2012	1,631,587	1,816,298

(Source: FAOSTAT)

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

Though the garlic trade continues to expand in the absence of a harmonized international standard, a standard is needed to increase trading efficiency. Garlic trade is carried out using different national or industry standards. In the absence of a common trading language, producers and traders find it tedious and/or difficult to communicate with new clients. In this regard, it would be helpful if the international dried garlic trade could be carried out using a single harmonized Codex standard. The development of a Codex standard will allow the different stakeholders to harmonize their different requirements to facilitate international trade.

c) International or regional market potential

From the trade data given in Table 1 and Table 2, it is evident that there is a constant high demand for garlic. Total export of garlic during 2012 is 1,755,615 tonnes as per FAOSTAT data. This shows that dried garlic is an internationally traded commodity.

d) Amenability of commodity to standardization

The characteristics of garlic traded, in dried and dehydrated states and parameters such as volatile oil, Total ash, maximum moisture content, acid insoluble ash, fibre content, flavour, Extraneous matter and defects allowed could be adequate for the standardization of the product. Furthermore, the existence of ISO standard and several national standards with the same parameters and nomenclature enhance the potential for successful development of a Codex standard for this 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 garlic. The new work will encourage consumer safety and also it will facilitate trade in dried or dehydrated garlic by establishing an internationally accepted and recognized quality standard.

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

The standard will be for dried or dehydrated garlic covering the relevant aspects concerned. But, it will include all the different forms of dried or dehydrated garlic such as whole, cracked, crushed, ground or powdered etc.

g) Work already undertaken by other international organization in this field

The international standards that can support the development of this standard:

- ISO 5560:1997. International Standard. Dehydrated garlic (*Allium sativum*L.) – Specification.
- ISO 5567:1982. International Standard. Dehydrated garlic - Determination of volatile organic sulphur compounds.
- UNECE STANDARD FFV-18 GARLIC 2011 EDITION (concerning the marketing and commercial quality control of garlic).
- European Union. EU Commission Regulation No 2288/97 of 18 November 1997 laying down marketing standards for garlic.
- European Spice Association quality minima document

5. Relevance to the Codex Strategic Objectives

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

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

A new proposal for standard on fresh garlic under CCFFV has been approved by CAC (Ref.N09-2014). This proposal is for a new Codex standard for dried garlic and is not related or based on any existing Codex document. However, when completed, the standard will include references to relevant existing Codex texts developed by general subject committees and also the on-going work in CCFFV on Garlic (Ref.N09-2014).

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

No expert scientific advice is foreseen at this stage. Published research documents by international bodies will be referred in the process of preparing the standard, 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 inputs from external bodies such as the International Organization for Standardization (ISO), American Spice Trade Association (ASTA), European Spice Association (ESA) as well as existing standards will be welcomed for development of the standard.

9. Proposed Time Schedule

The following is the proposed timetable for the completion of the standard, subject to the decisions taken during the Second Session of Codex Committee on Spices and Culinary Herbs:

DATE	**ADVANCE AND PROCEDURES**
3rd CCSCH	For the consideration of new work by the 3rd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2019	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX VIII

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR BASIL

Introduction

Basil, Thai basil, or sweet basil, is a common name for the culinary herb Basil which belongs to the family Lamiaceae, in the genus: Ocimum. Its scientific name is "*Ocimum basilicum"*. Basil herb is one of the oldest and popular herbal plants brimming with notable benefiting phytonutrients. This highly prized plant is revered as "holy herb" in many traditions all around the world. ". Basil is considered the "king of herbs" by many cookery authors. Basil is native to India, China, Southeast Asia and Iran. It was originally domesticated in India, having been cultivated there for more than 5,000 years, now it is found in most tropical parts of the world.

The most common varieties of basil are treated as annuals, some are perennial in warm, tropical climates, The various basils have such different scents because the herb has a number of different essential oils that come together in different proportions for various breeds (eugenol, citral, limonene, camphor, anethole…)

1. The Purpose and Scope of the Standard

The scope of the work is to establish a worldwide standard for dried and/or dehydrated whole, crushed or ground basil leaves (*Ocimum spp*.) of the family Lamiaceae to be offered industrial food production and direct consumption, including for catering purposes or for repacking, as required. The standard will cover all species and varieties of basil of commercial interest.

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

2. Relevance and Timeliness

Basil is widespread in Asia, Africa as well as central and Southern America. It appears to have its center of diversity in Africa. Basil is cultivated in many Asian and Mediterranean countries; France, Egypt, Hungary, Indonesia, Morocco and the United States of America. Developing a worldwide standard will help to protect consumer's health and to facilitate fair trade.

Increases of international tourism all over the world, the migrations flow, and globalization as well as increasing the food trade worldwide have increased the demand on the spices and herbs resulting in developing and growth in their international trade continuously.

3. Main aspects to be covered

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

- Product definition: Defining the product as dried and / or dehydrated basil's leaves including all species and varieties of basil (*Ocimum spp.)* of commercial.
- Style: Listing the different forms of the dried basil leaves (whole, crushed, and powdered).
- Composition: Including provisions for basic ingredient and other permitted ingredients. Establishing moisture, ash and volatile oil content as well as other values of the dried basil leaves.
- Quality criteria : Including provisions for colour , odour , flavour …etc
- Provisions for the labeling and marking of the product in accordance with the CODEX standard for the labeling of pre-packaged foods.
- Provisions for hygiene, contaminants, and pesticides residues with reference to pre-existing Codex documents.
- References to Methods of Analysis and Sampling.

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

General Criterion

Consumer protection from the point of view of health, food safety, ensuring fair practices in food trade and taking into account the indentified needs of developing countries.

The proposed new standard will meet this criterion by:

- Promotion of consumer protection and the prevention of fraudulent practices.
- Providing greater assurance of the product to meet consumer needs and the minimum requirements for food safety
- Arriving at levels of standardization based on the properties of different to meet industrial and consumer needs with exactness and credibility.

In addition, the elaboration of the standard would be to the benefit of many countries in general and more particular in the case of developing countries, for the developing countries are the major producers, exporters, and consumers of basil.

Criteria applicable to commodities

(a) Volume of production and consumption of (Basil, Hyssop, Roselle, Sage and Savory) in individual countries and volume and pattern of trade between countries

The global trade of Basil as total export and import in 2013 is to be (820,162MT -8201, 77MT) respectively as the major exporters were China, India, Madagascar, Egypt, and Mexico. While major importers was China, including Hong Kong SA, USA, Germany, Madagascar.

Table 1 - Volume of Global trade in Basil with other herbs

Country	Trade 2013	
	Import (MT)	Export (MT)
China	98,537	199,424
China (Hong Kong SA)	95,279	3,234
United States of America	72,147	13,454
Germany	56,688	21,270
Madagascar	49,311	71,141
Viet Nam	33,285	7,858
India	30,015	87,731
Japan	28,440	44
Korea, Republic of	27,213	314
Spain	18,710	13,982
France	17,122	6,562
Netherlands	15,853	3,343
Malaysia	15,446	2,340
Mexico	14,693	27,242
Canada	14,186	1,295
Singapore	13,453	1,884
Italy	11,388	2,641
United Kingdom	11,155	1,315
Thailand	10,497	8,831
Russian Federation	10,052	1,087
Pakistan	9,970	18,377
Poland	8,809	14,732
Egypt	6,862	41,664

Sources: ITC calculations based on UN COMTRADE statistics.

Table 2 - Pattern in international trade

Year	World Import (MT)	World Export (MT)
2009	546,145	558,101
2010	568,738	588,304
2011	658,888	594,303
2012	613,772	611,575
2013	820,162	820,177

Sources: ITC calculations based on UN COMTRADE statistics

.**Table 3 - Egyptian production of Basil 2014**

Governorates	Total		
	Production (Ton)	Yield (Ton/Fed.)	Area (Fed.)
Total	**153811**	**20.987**	**7329**

Source: *Agriculture Directorates - Union of Producers and Exporters of Horticultural Crops (UPEHC), 2016 - Egypt

Table 4 - Egyptian Exports of Basil 2015

Country	Total
Germany	540.65
USA	444.98
Russia	289.95
Poland	285.18
Brazil	231.53
Netherlands	145.57
Spain	133.08
India	130.83
Canada	111.99
France	111.29
England	95.47
Italy	94.98
Austria	93.99

Source: Central Administration of Plant Quarantine - Union of Producers and Exporters of Horticultural Crops (UPEHC), 2016 - Egypt

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

Imports and exports of basil take place for many applications. However, it would be preferred that the trade in basil 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 like the, European Spice Association and ISO have dealt with the standards for basil. 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

Dried basil foliage is the most important utilization form of basil after basil oil due to its popularity; basil is grown all over the world in the warm and temperate zones.

Egypt is one of the most suppliers for the western European Countries (England, Germany, France, Netherlands, Austria…etc)

Although basil has a wide popularity, no up to date figures can be found on the national and international trade statistics especially there is lacking of information of cultivated areas.

In contrast of basil oil, there are no available statistics concerning the world production of dried basil herb.

A considerable proportion of the world production particularly in the Mediterranean areas, India and California does not enter the international trade, but is rather consumed locally.

Table (1) and (2) indicate the pattern of trade (Import and Export in MT) between countries and worldwide between (2009 - 2013) for the basil herb among other herbs.

The world market for imported Basil in 2013 was valued at 3,086,654 (USD thousands) and the exported ones was 2,829,966(USD thousands), China contributes about 25% of the export market in 2013**.**

Basil shows an international growth in quantity exported between 2012 and 2013 (613,772- 820,162) MT respectively by percentage of 25%.

(d) Amenability of commodity to standardization

The standard will include the characteristics of dry and/or dehydrated basil's leaves including all species and varieties of basil cultivar varieties, composition, quality and packaging criteria.

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

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

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

The proposed standard will cover the dried and / or dehydrated basil's leaves. The different forms of basil like whole, crushed, and powdered.

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

i. ASTA's Cleanliness Specification for spices, seeds and herbs -USA (2007)
ii. Quality Minima Document of ESA (Rev.4) - December 2011
iii. ISO Standard for Dried sweet basil (*Ocimum basilicum* L.) - Specification (ISO 11163:1995)

5. Relevance to CODEX strategic objectives

The proposal is consistent with the Strategic Plan of the Codex Alimentarius Commission 2014-2019, in particular, Strategic Goal 1 and objectives 1.1, 1.3, 2.3 and 3.1 and aims at setting up international accepted minimum quality requirements of basil for human consumption.

6. Information on the relation between the Proposal and other existing CODEX document

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

- Principles and guidelines for the Establishment and Application of Microbiological Criteria for Foods (CAC / GL21-1997) "
- " General Principles of Food Hygiene" (CAC / RCP1-1969)
- Data bases related to the maximum limits for pesticides residues issued by Codex Committee on Pesticides Residues in Food (CCPR).
- General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995)

- Code of hygienic practice for spices and dried aromatic herbs (CAC/RCP 42-1995)

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

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

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

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

9. Proposed Time Schedule

The following is the proposed timetable for the completion of the standard.

DATE	ADVANCE AND PROCEDURES
3rd CCSCH	For the consideration of new work by the 3rd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2019	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX IX

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR DRIED SAFFRON

1. Purpose and the scope of the standard

The scope of the work is to establish a worldwide standard for dried saffron obtained from portion of the pistils of *crocus staivus L.* in forms of filament, cut filament and powder.

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

2. Relevance and timeliness

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

The current and historical significance of Saffron shows, Saffron is the endemic herb which is a strategic product of Iran.

The main producers of saffron are Iran, India, Greece, Morocco, Afghanistan and main importers are Spain, UAE, France, Italy, Sweden, USA, Argentina, Germany, United Kingdom, Hong Kong, Japan, Canada, Australia, Belgium, Oman, Qatar, Kuwait, Saudi Arabia, Singapore, Netherland, Brazil, Morocco, India, Ireland, Japan, Afghanistan, Bangladesh, Bahrain, Yemen, Denmark, Norway, Romania based on ITC data during 2008-2014.

Saffron is a drought tolerant plant that grows in arid and semiarid climate. Economics of this valuable crop from different dimensions such as marketing, employment, household’s income, globalization and nonoil export.

3. Main aspects to be covered

The standard will include characteristic relating to the size. Categories, quality, contaminants, labeling and packaging.

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

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

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

General criterion

The proposal new standard will meet this criterion by:

- promoting consumer protection and preventing of fraudulent practices
- providing greater assurance of quality of the product to meet consumer needs and minimum requirements of food safety

- arriving at levels of standardization based on the properties of different varieties to meet industrial and consumer needs with exactness and credibility
- The drafting standard would be beneficial to many countries in general and more particular in the case of developing countries because they are major producers, exporters and consumers of dried saffron.

Criteria applicable to commodities

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

Saffron is one of the most important export products and plays significant role in income and employment of Saffron producers. Iran, India, Greece, Morocco, Spain and Afghanistan are among main countries dealing with Saffron production. There are as yet no exact figures but these will naturally become available as the project advances.Other criteria and data (e.g monetary value or fraud possibility) should be considered to prioritize work on saffron. Meanwhile, the trade data on saffron are not always commodity-specific. There is not always possibility update the data on trade, when there is not the certain sources.

Major importer countries of Saffron are United Kingdom,Ireland, The United Arab Emirates (UAE), Spain, Saudi Arabia, France and Italy.

Table 1: Pattern of Export International Trade

Export	Value, US Dollar thousand
2010	409,886
2011	382,473
2012	160,746
2013	157,857
2014	169,940

Source: ITC,Geneva

Table 2: Pattern of Import International Trade

Import	Value, US Dollar thousand	World (Metric Tons)
2010	1312,154	806,68
2011	274,381	950,979
2012	166,432	1,003,220
2013	164,130	1,049,103
2014	167,515	996,796

Source: ITC,Geneva

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

As mentioned above, Saffron is traded according to purity, quality and forms. The form of Saffron varies filaments, cut filaments and powder. There are three national standards for Saffron. International organization like ISO has two standards for Saffron. Many conventions including those of the world Spice Congress and the World Spice Organization have addressed the issue of harmonization of grades and specification for Saffron. Saffron being produced in some developing countries and traded globally not only by the exporters but also through re-exports by importers is subject to various national legislations to overcome the resultant or potential impediment to international trade ,it is essential to incorporate all existing diverse standards in a single comprehensive standard acceptable across world internationally.

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

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

(c) International or regional market potential

The quantity imported of saffron in 2014 has been reported 5491 tones and Annual growths quantity of imported Saffron in the world is 51% between 2010-2014, which shows international demand for saffron has been grown (ITC, Geneva 2014). The major exporters are Iran, Spain, Portugal, France, Italy, India, , India , United Arab Emirates .according to ITC data, the international trade accounted to more than 2000 tones for about 165536 US $ thousands in 2014.

Table 3: List of Exporters of saffron in 2014

Exporters	Exported value in 2014(Us$ Thousand)	Quantity Export in 2014(tones)	Annual Growth in quantity 2010-2014(%)
World	165536	2483	+20
Iran (Islamic Republic of)	70911	129	+10
Spain	47516	134	+2
Portugal	18284	22	+34
France	7100	14	0
Georgia	219	26	-
Italy	2509	18	+13
India	1850	62	+164
United Arab Emirates	1734	36	-
Greece	1440	2	-46
China	1415	69	-19
UK	1325	121	-10
Netherlands	1144	29	-8
Vietnam	887	403	+39
Indonesia	547	900	+55
USA	437	82	+28
Brazil	57	31	-
South Africa	212	48	+4
Mexico	171	13	-
Saudi Arabia	121	2	-
Hong kong,China	92	1	0
Singapore	371	1	0
Stonia	432	17	-
Sweden	374	8	+10
Belgium	784	21	+15
Morocco	264	1	-10
Ethiopia	222	212	+162
Czech Republic	78	14	+30
Denmark	60	5	+62

Source: ITC, Geneva (30 out of 63 countries)

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

(d) Amenability of commodity to standardization The characteristics of Saffron from 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 saffron under Codex. The proposed standard will heighten consumer protection and facilitate saffron trade by establishing an internationally agreed quality standard.

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

A single standard for saffron will cover all forms of saffron traded worldwide. The different forms of saffron like powder, filaments and cut filaments 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 saffron are:

- ISO international standard 3632-1:2011(Edition2): Specifications,
- Test methods
- American Standard Trade Association (ASTA)
- European Standard Association(ESA)

5. Relevance to the Codex strategic objectives

The elaboration of a Codex standard for saffron is in line with the strategic objective to promote the maximum application of codex standards by countries in their national legislation and to facilitate international trade by protecting the health of the consumers.

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

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.

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**

DATE	ADVANCE AND PROCEDURES
3rd CCSCH	For the consideration of new work by the 3rd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2019	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX X

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR NUTMEG (*Myristicafragrans*Houtt)

Introduction

Nutmeg and Mace from *Myristicafragrans*Houtt or fragrant nutmeg is an important commodity widely used in food industry. Nutmeg used in the natural food flavouring in breads, syrups, beverages, and candy. Nutmeg is the seed of the fruit of the plant *Myristicafragrans*Houtt of the Myristica family, already dried and unshelled, round and oval shape. Mace is arillus red to light yellow that exists between the flesh and seed of the fruit of the plant *Myristica*spp, cleaned and dried.

Nutmeg is native to the Moluccas Islands of Indonesia, but it is also grown in Penang Island in Malaysia, in the Carribean (particularly Grenada), Papua New Guinea, Guatemala and Costa Rica, in the southern state of Kerala in India, Sri Lanka and in the island of Zanzibar. The largest importing countries are European Union, USA, Japan and India. The biggest re-exporting countries are Singapore and the Netherlands. Each country has its own standards in production and trade, it makes harmonization of nutmeg standard become necessary.

This work aims at establishing a worldwide standard quality, facilitate international trade of Nutmeg and Mace from *Myristicafragrans*Houtt of the Myristica family.

1. The Purpose and Scope of the Standard

The scope of the standard will cover Nutmeg and Mace from *Myristicafragrans*Houtt of the Myristica family to be supplied to the consumers or the food industry in its whole, crushed and powdered form; and based on quality characteristics like colour, odour, mould, extraneous matter, insect, and moisture content. Chemical content like ash total, acid insoluble ash and essential oil are also considered.

2. Relevance and Timeliness

Nutmeg is one of the oldest traded commodities in the world. The difference interests between the producers and consumers generate diversity of standards. This causes difficulties in trade, especially in consumer protection. Therefore, the harmonization of standards become necessary and the standard will be the world's single reference standard. Nutmeg became a universal commodity and consumed by millions of people as well as a number of industry segments such as food. Therefore nutmeg hygiene and quality standard is needed.

Nutmeg is used extensively in whole, crushed, powdered and in an essential oils form in the food industry. Harmonization will reduce the difference in standards between countries producers, re-exports and consumers. Nutmegs' standard is very relevant to be developed into globally accepted standard through harmonization based on its properties especially chemicals and physical characteristics. Harmonization of nutmeg standard will be a reference in consumer protection and facilitate fair trade in accordance with international agreements as well as a reference internationally agreed through consensus between producers, consumers and traders countries.

Table 1. Nutmeg products and their uses

Nutmeg Product	Uses
1. Dried whole, ground nutmeg	Flavouring in food industry: meat & dairy products (sausages, soups, spice mixes, baked products, eggnog, ice cream etc.)- both domestic and industrial use.
2. Mace – Dried, whole , ground	Domestic culinary uses, Industrial culinary uses as flavourings for sweet foods, cakes, doughnuts, dairy products,

3. Main aspects to be covered

The main aspects of the product to be covered in the standard are the minimum quality and safety requirements to protect consumer's health and to ensure fair practices in food trade:

- Establish the minimum quality requirements cleanliness specifications and defects action levels as per the products like quality characteristics of nutmeg like size, colour, odour, ruptured and wrinkled, uniformity, weight, mould, extraneous matter, insect, broken, moisture content, ash total, acid insoluble ash, calcium (CaO), essential oil and aflatoxin levels.

- Mace based on quality characteristics like colour, odour, mould, extraneous matter, insect, and moisture content.
- Chemical content like ash total, acid insoluble ash and essential oil.
- Provisions concerning tolerances with respect to quality and size allowed in every classes.
- Provisions concerning presentation – the uniformity of the packaged product with respect to same origin, quality, size, etc. Provisions for the marking or labelling of the product in accordance with the *General Standard for the Labelling of Pre-packaged Foods*,
- Provisions for contaminants maximum levels, pesticide residues and hygiene with reference to pre-existing Codex Standards
- Reference to Methods of Analysis and Sampling.

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

General criterion

Consumer protection from the point of view of health, food safety, ensuring fair practices in the food trade and taking into account the identified needs of developing countries.

- Consumer protection from the point of view of health and the prevention of fraudulent practices.
- Quality of the produce to meet consumer needs and the minimum requirements of food safety.
- Standardization of products very beneficial for many countries.

Criteria applicable to commodities

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

Nutmeg is one of the spices of the most traded in the world with a total volume of exports from producing countries such as Indonesia, Sri Lanka, India and Grenada were as in Table 2 below:

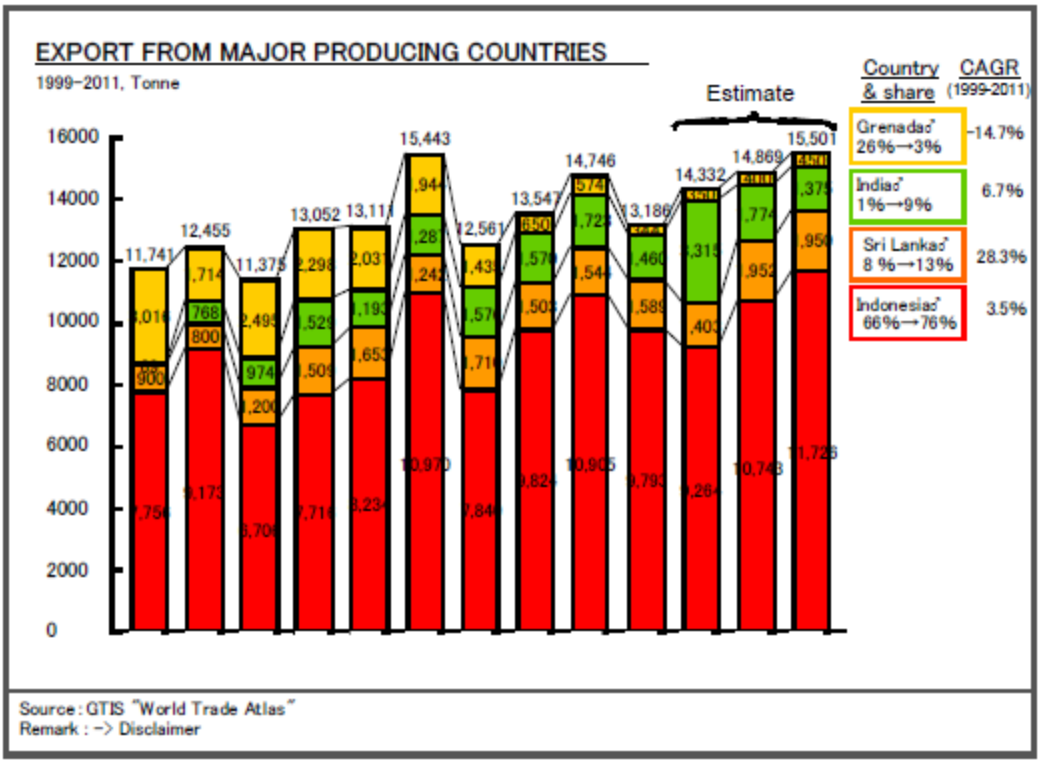
Table 2. World Export Volume

YEAR	WORLD EXPORT VOLUME
1999	11.741 tonnes
2000	12.455 tonnes
2001	11.375 tonnes
2002	13.052 tonnes
2003	13.111 tonnes
2004	15.443 tonnes
2005	12.561 tonnes
2006	13.547 tonnes
2007	14.746 tonnes
2008	13.180 tonnes
2009	14.332 tonnes
2010	14.869 tonnes
2011	15.501 tonnes

Source: GTIS “World Trade Atlas”

In 1999-2011, Indonesia export market share was 66-76%, Sri Lanka was 8-13%, India was1-9% and Grenada was 26-3%.

Figure 1. Export form Major producing Countries



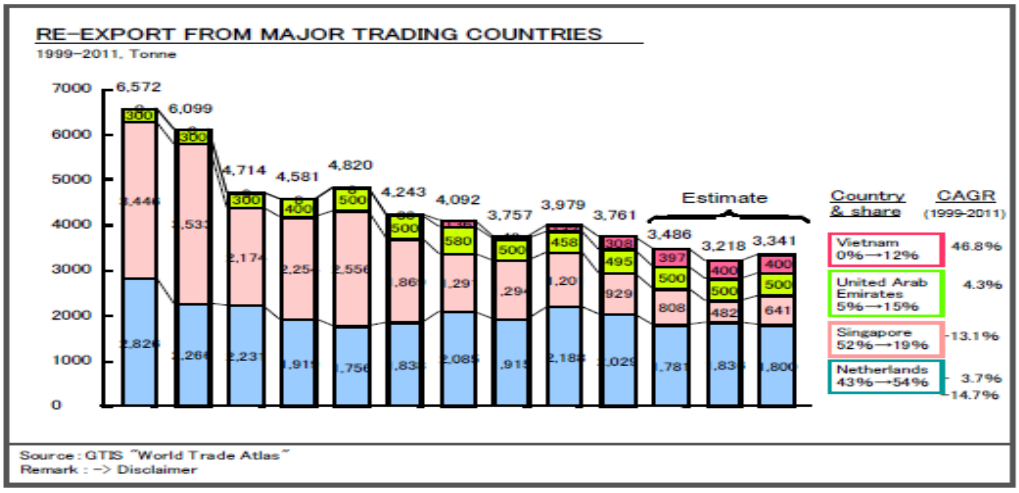
Total volume of re-export nutmeg from traders countries such as Netherlands, Singapore, United Arab Emirates and Vietnam were as in Table 3 below.

Table 3. World Re-Export Volume

YEAR	WORLD RE- EXPORT VOLUME
1999	6.572 tonnes
2000	6.099 tonnes
2001	4.714 tonnes
2002	4.581 tonnes
2003	4.820 tonnes
2004	4.243 tonnes
2005	4.092 tonnes
2006	3.757 tonnes
2007	3.979 tonnes
2008	3.761 tonnes
2009	3.486 tonnes
2010	3.218 tonnes
2011	3.341 tonnes

In 2009-2011, Netherland re-export market share was 43%-54%, Singapore were 52%-19%, United Arab Emirates was 5%-15% and Vietnam was 0-12%.

Figure 2. Re-Export form Major Trading Countries



Major importing countries of nutmeg are European Union (Netherlands, Germany, Italy, Belgium and France), United States, Vietnam, Japan, United Arab Emirates and Vietnam. In 2010, total market size of import nutmeg was US$ 115.000. European Union is the largest importers.

Figure 3. Major Importing Countries

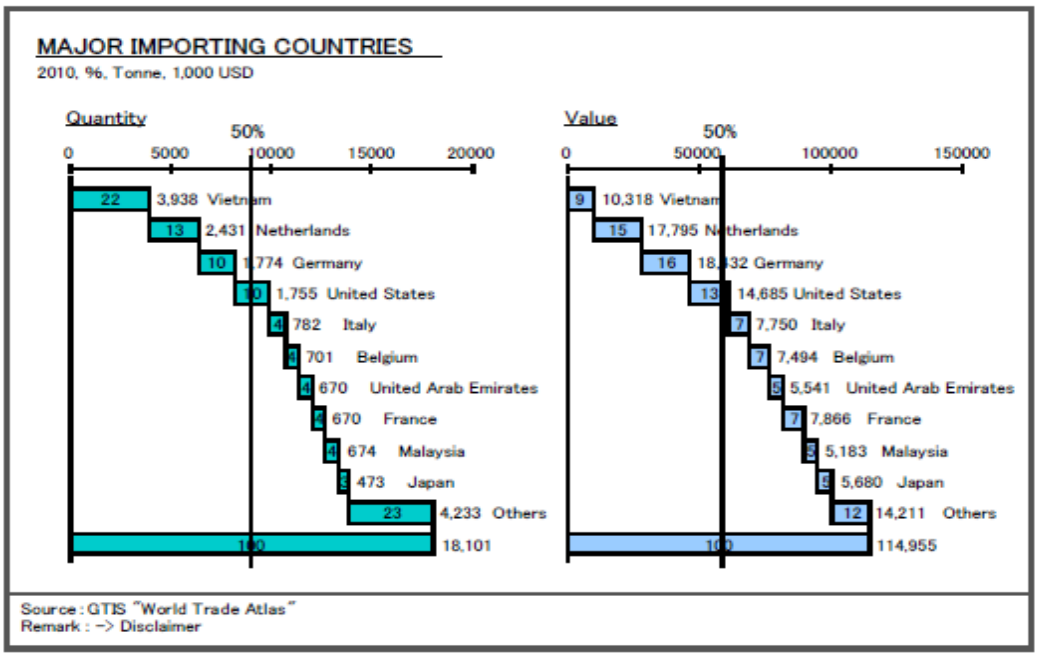


Table 4. Pattern of International Trade of Nutmeg

Year	Import		Export	
	Quantity (Tons)	Value (US$ Thousands)	Quantity (Tons)	Value (US$ Thousands)
2009	19135	119.190	20.890	109.361
2010	102656	147.310	20.489	134.234
2011	24073	259.188	23.767	253.285
2012	3891	37.944	4.936	50.040

Source: ITC, Geneva

Table 5. Pattern of International Trade of Mace

Year	Import		Export	
	Quantity (Tons)	Value (US$ Thousands)	Quantity (Tons)	Value (US$ Thousands)
2009	3014	24.489	5109	31.370
2010	3648	44.849	4996	53.123
2011	4620	70.797	5026	70.469
2012	636	10.070	429	5.502

Source: ITC, Geneva

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

International organizations like ISO have dealt with the standards for Nutmeg. Many conventions including that of the International Spice Conference (ISC, 2013) has addressed the issue of harmonization of grades and specifications for Nutmeg. Nutmeg being produced in several countries and traded globally not only by the exporters but also through re-exports by importers is subject to various national legislations. To overcome the resultant or potential impediments to international trade, it is essential to incorporate all existing different standards in a single improved comprehensive standard acceptable across board internationally.

(c) International or regional market potential:

Consumption and total imports of Nutmeg are expected to increase along with the increase of world population and economic development. On average, between 2009 and 2010, 17.520 tons and 37.439 tons for exports and imports respectively were traded globally. The averages of mace traded in the recent 4 years (2009-2012) are 3.890 tons for export and 2.979 tons for import (ITC, Geneva). EU and US are major importing countries for Nutmeg and other emerging markets include: Japan, Middle East, and Eastern Europe.

(d) Amenability of commodity to standardization:

The characteristics of nutmeg and mace, from its cultivation through to harvest, cultivar varieties, quality and packaging all lend to adequate parameters for the standardization of the product. This will include defining quality characteristics like size, colour, odour, ruptured and wrinkled, uniformity, weight, mould, extraneous matter, insect, broken, moisture content, ash total, acid-insoluble ash, calcium (CaO), essential oil and aflatoxin level which should be considered to protect the health of consumers and ensure fair practices in food trade. Mace based on quality characteristics like colour, odour, mould, extraneous matter, insect, and moisture content. Chemical content like ash total, acid insoluble ash and essential oil.

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

There is no general commodity standard covering nutmeg under Codex and so the new work will facilitate nutmeg trade and enhance consumer protection by establishing an internationally agreed quality standard and thus harmonise the many existing standards.

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

The standard will be for Nutmeg and Mace from *Myristicafragrans*Houtt of the Myristica family.

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

ISO specification for Nutmeg (ISO 6577:2002)

5. Relevance to the Codex Strategic Objectives.

This proposal is consistent with the Strategic Plan of the Codex Alimentarius Commission 2014-2019, in particular Objective 1.1, 1.3, 2.3 and 3.1 and aims at setting up international accepted minimum quality requirements of nutmeg for human consumption.

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

This proposal is for 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.

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

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

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

The technical input from ISO might be sought and used in the development of the standard.

9. Proposed Time Schedule

The following tentative timeline is proposed, subject to the decisions taken during the Second Session of Codex Committee on Spices and Culinary Herbs:

DATE	**ADVANCE AND PROCEDURES**
3rd CCSCH	For the consideration of new work by the 3rd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2019	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX XI

PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON CODEX STANDARD FOR CLOVES

Introduction

Cloves are the aromatic flower buds of the tree in the family of *Myrtaceae Syzygium aromaticum*. They are sold whole or ground and can be used as a spice.

Cloves are one of the most well-known spices'. It is traded internationally. Major clove producing countries are: India, Madagascar, Zanzibar, Pakistan, Sri Lanka and Tanzania; and with world production estimated over 2 00,000 metric tonnes. The major component of clove taste is imparted by the presence of eugenol and the quantity of the spice required in foods is typically small as it pairs well with other flavours.

1. Purpose and the Scope of the standard

The scope of the work is to establish a worldwide quality standard for whole dried cloves, and (ground) powdered cloves.

The objective is to consider the essential quality characteristics of Cloves for industrial food production and for direct consumption, including for catering purposes and other essential uses

2. Relevance and timeliness

Due to the growing trend of worldwide Clove 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 main producing and trading countries across the world. More significantly, the present status of Cloves is not limited to any particular region as Cloves are used in the cuisine of Asian, African, and the Near and Middle East, lending flavour to meats, curries, and marinades, as complement to fruit such as apples, pears, or rhubarb (Culinary use), Hence, justifying the elaboration of an international standard commensurate with Clove's true standing as an increasingly valuable worldwide commodity. In addition, the establishment of a Codex standard for Cloves will help to protect consumers' health and promote fair trade practices in accordance with the international agreements in particular the absence of a Codex Standard that would be used by governments in World trade thus affecting WTO SPS and TBT Agreements.

3. Main aspects to be covered

The standard entails main aspects related to the definition of the produce, essential quality factors e.g. moisture, acid insoluble ash 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 most relevant items which may be considered are related to:

- Establish the minimum requirements of cloves which shall be complied independently from the quality parameters and other requirements regardless of class.
- Define the categories to classify cloves in accordance with its characteristics.
- Establish the tolerance as regards quality and size that may be permitted of cloves 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 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

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

Clove is an important trade crop globally because it is of great importance in the spices and culinary industry in many of the countries that produce and import the commodity. Thus to countries like: Indonesia, Singapore, India, Tanzania and Nigeria just to mention a few. The consumption of cloves globally is immense, detailed statistics of its world production import and export are shown in Table 1-6.

Table 1: World-wide Production Data

Year	Production (in Tonnes)
2008	99,567
2009	110,755
2010	127,456
2011	101,342
2012	126,956
2013	137,010
2014	152,968

(Source: FAOSTAT)

Table 2. Import data of Nigeria for Cloves 2004 - 2013

Year	Quantity (in Tonnes)	Value (in US $1000)
2004	63	230
2005	171	543
2006	164	656
2007	245	398
2008	43	60
2009	43	60
2010	400	2,148
2011	335	2,175
2012	264	3,162
2013	191	2,255

(Source: FAOSTAT)

Pattern of International Trade

Table 3: World-wide Export Data

Year	Export Quantity (in Tonnes)	Value (in US $1000)
2009	53,283	169,206
2010	43,904	159,871
2011	91,358	734,463
2012	49,077	411,878
2013	37,348	334,091
2014	52,906	433,731
2015	51,800	364,076

(Source: ITC calculations based on UN COMTRADE statistics.)

Table 4: World-wide Import Data

Year	Import Quantity (in Tonnes)	Value (in US $1000)
2009	47,735	153,464
2010	38,594	140,938
2011	64,621	710,526
2012	45,111	437,739
2013	32,269	271,255
2014	50,309	378,470
2015	50,291	371,181

(Source: ITC calculations based on UN COMTRADE statistics.)

Table 5. Import Statistics of Cloves in 2013

Rank	Area	Quantity (tonnes)	Value (1000 $)	Unit value ($/tonne)
1	India	10,924	93,934	8,599
2	Singapore	6,007	6,3209	10,526
3	United Arab Emirates	3,683	41,377	11,235
4	Viet Nam	2,600	14,785	5,687
5	United States of America	1,970	19,708	10,004
6	Netherlands	1,276	12,219	9,576
7	Pakistan	1,192	2,432	2,040
8	Malaysia	691	3,961	10,130
9	Germany	669	7,020	10,493
10	United Kingdom	432	5,258	12,171
11	Bangladesh	363	3,907	10,763
12	Japan	354	4,031	11,387
13	South Africa	311	1,606	5,164
14	Indonesia	308	3299	10,711
15	Nigeria	191	2,255	11,806

(Source: FAOSTAT)

Table 6. Export Statistics of Cloves in 2013

Rank	Area	Quantity (tonnes)	Value (1000 $)	Unit value ($/tonne)
1	Madagascar	11,697	104,303	8,917
2	Sri Lanka	5,478	49,297	8,999
3	Indonesia	5,177	25,399	4,906
4	Comoros	4,527	26,039	5,752
5	India	4,298	5,177	1,205
6	Brazil	4,095	37,698	9,207
7	United Republic of Tanzania	4,089	43,061	10,531
8	Singapore	4,019	43,008	10,701
9	Netherlands	723	9,567	13,232
10	United States of America	353	1,458	4,130
11	Germany	222	3,203	14,428
12	Malaysia	163	1,151	7,061

(Source: FAOSTAT)

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

Clove is a traded commodity across the globe with differences with regard to the quality of the product such as moisture levels, ash content and extraneous matter across countries. Trade in cloves 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 producing country.

An international organisation like ISO already has an existing standard for cloves; therefore there is dire need to harmonize grades and specifications for cloves. 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 in line with the Procedural Manual.

(c) International or regional market potential:

The import of Cloves by most countries is increasing. India is currently the largest importer of Cloves with 10924 tonnes and Madagascar is the largest exporter globally with 11697 tonnes, according to the current statistic of FAOSTAT.

It can be seen in Table 4 above, that though there are indication of fluctuation generally in the World-import of cloves, there has however been a growth in Quantity of import of cloves from 47.735 tons in 2009 to 50.291 tons in 2015 with also an increase in value from 153,464 thousand dollars (USD) in 2009 to 371,181 thousand dollars (USD) in 2015

(d) Amenability of commodity to standardization

The characteristics of cloves 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. Using ISO standards as well as ASTA and ESA technical inputs from other cloves producing countries like Indonesia, Madagascar, Tanzania, to mention a few, shall be welcomed as the basis to develop a global harmonized standard by considering other countries / regions needs, should therefore be amenable to / facilitate worldwide harmonization.

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

There is no commodity standard covering cloves in international trade. The proposed standard will enhance consumer protection and facilitate cloves fair trade by establishing an internationally agreed and recognized quality standard.

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

A single standard for cloves will cover all varieties of cloves traded worldwide. The varieties of cloves like whole cloves, split dried cloves, and (ground) powder of cloves and its products will be examined under this individually.

(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 cloves are:

- ISO 2254:2004 specifies requirements for whole and ground (powdered) Cloves (*Syzyguim aromaticum* L).

5. Relevance to the Codex strategic objectives

The proposal is in line with the Strategic Vision Statement of the Strategic Plan 2014 - 2019, in particular, Objectives 1.1, 1.3, 2.3 and 3.1 and aims at setting up internationally accepted minimum quality requirements of cloves for human consumption with the purpose of protecting the consumer's health and achieving fair practices in food trade. It also contributes to fair practices in trade wherein the farmers will be able to assess their produce with reference to the quality standards thereby empowering them to realize more monetary values.

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

This proposal is for a new global standard and it is believed not to have any relationship to 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.

7. Scientific advice related to expert input from FAO, WHO, JECFA and such related bodies.

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 ISO, European Spice Association and World Spice Organization as well as from cloves producing countries shall be welcomed as they have already done work related to the subject. Also ISO standards can be used as a step process to frame the codex standards for cloves.

9. Proposed timeline for completion of the new work

DATE	ADVANCE AND PROCEDURES
3rd CCSCH	Consideration of new work by the 2nd session of CCSCH
July 2017	Critical review of proposal by CCEXEC; Approval of new work proposals by the Commission
4th CCSCH	Consideration at Step 3 by the 3rd CCSCH Approval at Step 3.
July 2018	Adoption at Step 5 by CAC
5th CCSCH	Consideration at Step 6 by the 4th session of CCSCH
July 2021	Adoption at Step 8 by the CAC

APPENDIX XII

TEMPLATE

STANDARD FOR [ ]

1 SCOPE

This Standard applies to plant products in their dried or dehydrated form as spices or 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 the product for industrial processing.

2 DESCRIPTION

2.1 PRODUCT DEFINITION

Product can be a generic product as described in Annex I, serial no**. [ ].**

2.2 Styles

Spices and culinary herbs may be:

- Whole,
- Cracked/broken, or
- Ground/powdered,
- Other styles distinctly different for those three are allowed, provided they are labeled accordingly

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

Product shall belong to the list of products in Annex III, serial no. [ ] and shall conform to requirements set in Appendices II and III.

3.2 QUALITY FACTORS

3.2.1 Odour, flavor and color:

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

3.2.2 Chemical and physical characteristics

The generic product shall comply with the requirements specified in Appendix II (Chemical Characteristics) and Appendix III (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.

3.2.3 Classification where applicable

4 FOOD ADDITIVES

The need for use Food additives will considered on a case by case basis.

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* (CODEX STAN 193-1995).

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

6 FOOD 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* (CAC/RCP 75-2015) Annex III Spices and Aromatic Herbs and other relevant Codex texts such as codes of hygienic practice and codes of practice.

6.2 The products should comply with any microbiological criteria established in accordance with the *Principles for the Establishment and Application of Microbiological Criteria for Foods* (CAC/GL 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* (CODEX STAN 1-1985). In addition, 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.

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

8.3 Country of origin/country of harvest

8.4 Commercial Identification

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

8.5 Inspection mark (optional)

8.6 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[1]

Parameter	Method	Principle
Moisture	ISO 939:1980 [AOAC 2001.12} [ASTA 2.0]	Distillation
Total Ash	ISO 928:1997 AOAC 950.49 ASTA 3.0	Gravimetry
Acid Insoluble Ash	ISO 930:1997 ASTA 4.0	Gravimetry
Volatile Oil	ISO 6571:2008 AOAC 962.17 ASTA 5.0	Distillation
Extraneous Matter	ISO 927:2009 ASTA 14.1	Visual Examination
Foreign Matter	ISO 927:2009	Visual Examination
Insect Damage	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Buletin Number 5) http://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm084394.htm#v-32	Visual Examination
Insects/Excreta/Insect Fragments	Method appropriate for particular spice from AOAC Chapter 16, subchapter 14	Visual Examination

[1] Latest edition or version of the approved method should be use

9.2 SAMPLING PLAN

To be developed

ANNEX I

Part. I – Spices and Culinary Grouping by Plant Parts A. SPICES			
Sl. No	**Name of Spice**	**Scientific Name**	**HS Code**
Dried Fruits and Berries			
1.	Allspice	*Pimenta dioica* (L.) Merr.	
2.	Star Anise	*Illicium verum* Hook.f.	HS 090910
3.	Bengal cardamom	Amomum aromaticum Roxb.	
4.	Cardamom (Large)/ Black cardamom	*Amomum subulatum* Roxb.	HS 09083110
5.	Cardamom (Small)	*Elettaria cardamomum* Maton	HS 09083120
6.	Cameroon cardamom	*Aframomum hanburyi* K.Schum.	
7.	Cambodian cardamom	*Amomum krervanh* Pierre ex Gagnep.	
8.	Korarima cardamom	*Aframomum corrorima* (Braun) P.C.M.Jansen	
9.	Madagascar cardamom	*Aframomum angustifolium* K.Schum.	
10.	Round cardamom/Chester cardamom/Siamese cardamom/ Indonesian cardamom	*Amomum kepulaga* Sprague & Burkill	
11.	Sri Lankan Cardamom	*Elettaria cardamomum* Maton	
12.	Tsao-ko Cardamom	*Amomum tsao-ko* Crevost & Lemarié	
13.	Chilli	*Capsicum annuum* L.	HS 090420
14.	Paprika	*Capsicum frutescens* L.	
15.	Chinese pepper	*Zanthoxylum acanthopodium* DC.	
16.	Chinese prickly ash pepper/ Sechuang pepper	*Zanthoxylum bungei* Hance	
17.	Cubebs	*Piper cubeba* Bojer	
18.	Grain of paradise (Guinea grains, Melegueta pepper, Alligator pepper)	*Aframomum melegueta* K.Schum.	
19.	Negro pepper / Guinean pepper pods	*Xylopia aethiopica* A.Rich.	
20.	Pepper (Black, White, Green	*Piper nigrum* Beyr. ex Kunth	HS 090411
21.	Pepper Long	*Piper longum* Blume	HS 09041110
22.	Pink pepper Brazilian pepper	*Schinus molle* hort. ex Engl. *Schinus terebinthifolius* Raddi	
23.	Sichuan pepper /Japanese pepper	*Zanthoxylum piperitum* Benn.	
24.	West African / Benin pepper	*Piper guineense* Thonn.	
25.	Dried Mango	*Mangifera indica* Thwaites	
26.	Camboge	*Garcinia cambogia* hort. ex Boerl.	
27.	Kokam	*Garcinia indica (Thouars)* Choisy	HS 12079940
28.	Juniper berry	*Juniperus communis* Thunb.	HS 09095021
29.	Tamarind fruit	*Tamarindus indica* L.	HS 08134010
30.	Vanilla	*Vanilla planifolia* Andrews	HS 090500
31.	Pompon vanilla	*Vanilla pompona* Schiede	
32.	Tahitian Vanilla	*Vanilla tahitensis* J.W.Moore	

Dried Roots, Rhizomes, Bulbs			
33.	Dried Garlic	*Allium sativum* L.	HS 07129040
34.	Shallot	*Allium ascalonicum* L.	
35.	Galanga	*Kaempferia galanga* L.	HS 12119042
36.	Greater galangal	*Alpinia galanga* Willd.	
37.	Lesser galangal	*Alpinia officinarum* Hance	
38.	Ginger	*Zingiber officinale* Roscoe	HS 091010
39.	Horse Radish root	*Armoracia rusticana* G.Gaertn., B.Mey. & Scherb.	HS 07069010
40.	Sweet flag	*Acorus calamus* L.	HS 12119048
41.	Turmeric	*Curcuma longa* L.	HS 091030
Dried Seeds			
42.	Aniseed	*Pimpinella anisum* L.	
43.	Ajowan/ Ajwain	*Trachyspermum ammi* Sprague	HS 09109914
44.	Black caraway	*Bunium persicum* B.Fedtsch.	
45.	Black caraway	*Carum bulbocastanum* W.D.J.Koch	
46.	Caraway	*Carum carvi* L.	HS 090940
47.	Black cumin	*Nigella sativa* L.	
48.	Cumin (Green /White Cumin)	*Cuminum cyminum* Wall.	HS 090930
49.	Damas black cumin	*Nigella damascena* L.	
50.	Black mustard	*Brassica nigra* (L.) Andrz.	
51.	Mustard	*Brassica juncea* (L.) Hook.f. & Thomson	HS 120750
52.	White/yellow mustard	*Sinapis alba* L	
53.	Celery	*Apium graveolens* L.	HS 09109911
54.	Garden Celery	*Apium graveolens* L.	
55.	Coriander	*Coriandrum sativum* L.	HS 090921
56.	Dill	*Anethum graveolens* L.	HS 09109913
57.	Indian Dill	*Anethum sowa* Roxb.	
58.	Fennel	*Foeniculum vulgare* Mill.	HS 090950
59.	Sweet fennel	*Foeniculum vulgare* Hill	
60.	Fenugreek	*Trigonella foenum-graecum* Sm.	HS 09109912
61.	Nutmeg	*Myristica fragrans* Houtt.	HS 090810
62.	Papuan nutmeg	*Myristica argentea* Warb.	
63.	Poppy seed	*Papaver somniferum* L.	HS 120791
64.	Sesame/ Gingelly	*Sesamum indicum* L.	
65.	Pomegranate seed	*Punica granatum* L.	
Dried Floral parts			
66.	Clove	*Syzygium aromaticum* (L.) Merr. & L.M.Perry	HS 090700
67.	Saffron	*Crocus sativus* Biv. ex Steud.	HS 091020
68.	Caper	*Capparis spinosa* L.	HS 071130

Dried leaves			
69.	Bay Leaf	*Laurus nobilis* Cav.	HS 09104030
70.	Leek / Winter leek	*Allium porrum* L. *Allium ampeloprasum* Boiss.	
71.	Curry leaf	*Murraya koenigii* Spreng.	HS 091050
72.	Pandan wangi	*Pandanus amaryllifolius* Roxb.	
73.	Tejpat (Indian Bay)	*Cinnamomum tamala* (Buch.-Ham.) T.Nees & C.H.Eberm.	HS 09104010
Dried Bark			
74.	Cassia	*Cinnamomum cassia* Siebold	HS 09061910
75.	Indonesian cassia	*Cinnamomum burmannii* (Nees & T.Nees) Blume	
76.	Vietnamese cassia	*Cinnamomum loureirii* Nees	
77.	Cinnamon	*Cinnamomum zeylanicum* Blume	HS 090611
Others			
78.	Asafoetida	*Ferula assa-foetida* L. *Ferula foetida* (Binge) Regel *Ferula narthex* Boiss	HS 13019013
79.	Carambola	*Averrhoa carambola* L.	
80.	Mace	*Myristica fragrans* Houtt.	HS 090820
81.	Papuan mace	*Myristica argentea* Warb.	

PART 1 B. Culinary Herbs Grouping			
Sl. No	**Name of Culinary Herb**	**Scientific Name**	**HS Code**
Dried Herb			
82.	Basil	*Ocimum basilicum* L.	
83.	Hyssop	*Hyssopus officinalis* L.	
84.	Lovage	*Levisticum officinale* W.D.J.Koch	HS 12119095
85.	Peppermint	*Mentha* × *piperita* L., pro spec. & Hylander	HS 12119070
86.	Spearmint	*Mentha spicata* L.	
87.	Japanese mint / field mint / corn mint	*Mentha arvensis* L.	
88.	Balm/ Lemon balm/ Melissa	*Melissa officinalis* L.	
89.	Bergamot	*Mentha citrata* Ehrh.	
90.	Marjoram	*Majorana hortensis* Moench	
91.	Sweet marjoram	*Origanum majorana* L.	
92.	Oregano	*Origanum vulgare* L.	
93.	Mexican oregano	*Lippia graveolens* Kunth	
94.	Parsley(curly)	*Petroselinum crispum* (Mill.) A.W.Hill	
95.	Parsley (flat)	*Petroselinum sativum* Hook. & Gillies	
96.	Rosemary	*Rosmarinus officinalis* L.	
97.	Sage	*Salvia officinalis* Pall.	
98.	Thyme	*Thymus vulgaris* L.	HS 09104020
99.	Creeping thyme / Wild thyme / Mother of thyme	*Thymus serpyllum* L.	
100.	Tarragon	*Artemisia dracunculus* L.	HS 07108010
101.	Summer Savory	*Satureja hortensis* L.	
102.	Winter Savory	*Satureja montana* L.	
103.	Sri Lankan Citronella	*Cymbopogon nardus* (L.) Rendle	
104.	West Indian Lemon grass	*Cymbopogon citratus* Stapf	

PART 1 C. Ungrouped Spices & Culinary Herbs			
Sl. No.	**Name of Spice/ Culinary Herbs**	**Scientific Name**	**HS Code**
105.	Belimbing / Bilimbi / Cucumber tree	*Averrhoa bilimbi* L.	
106.	Chervil	*Anthriscus cerefolium* Hoffm.	
107.	Chive	Allium schoenoprasum Regel & Tiling	
108.	Indian leek/ Chinese chive	*Allium tubersome* Rottler ex. Sprengel	
109.	Garden angelica	*Angelica archangelica* L.	
110.	Stony leek/ Welsh onion/ Japanese bunching onion	*Allium fistulosum* L.	
111.	Potato onion	*Allium cepa L.*	
112.	West Indian bay	*Pimenta racemosa* (Mill.) J.W. Moore	

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
			*Ferula narthex*Boiss	
			Ferula assa-foetida L.	
			Ferula foetida (Binge) Regel	
		Sweet Basil	*Ocimumbasilicum* L.	
		Bush Basil	*Ocimum minimum* L.	
11	Angostura (Cusparia bark)		*Galipeaofficinalis* Hancock.	Bark
6	Ambrette		*Hibiscus abelmoschus*	Fruit
12	Anise (AniSeed)		*Pimpinellaanisum* L.	Fruit
3	Allspice (Leaf)		*Pimentadioica* (L) Merr.	Leaf
9	Angelica Leaf		*Angelica archangelica* L. or *Angelica* spp.	Leaf
14	Basil		**Any of the below species**	Leaf
15	Bay Leaves (Laurel Leaves)		*Laurusnobilis*L.	Leaf
16	Bergamot		*Menthacitrata*Ehrh.	Leaf/Stem
8	Angelica Root		*Angelica archangelica* L. or *Angelica* spp.	Root
13	Asafoetida		**Any of the below species**	Roots, Rhizomes, Bulbs
1	Ajowan/ Ajwain		*Trachyspermumammi* Sprague	Seed
2	Alfalfa Seed		*Medicago sativa* L.	Seed
4	Allspice (Pimento)		*Pimentadioica* (L) Merr.	Seed
5	Ambrette		*Abelmoschusmoschatus*Medik.	Seed
7	Anatto		*Bixaorellana*	Seed
10	Angelica Seed		*Angelica archangelica* L. or *Angelica* spp.	Seed
17	Black caraway		*Buniumpersicum*B.Fedtsch.	Seed
18	Black cumin		**Any of the below species**	Seed
		Russian Caraway	*Nigella sativa* L.	
		Black Caraway	*Nigella sativa* L.	
		Damas black cumin	*Nigella damascena* L.	
19	Borage Leaf		*Boragoofficinalis*	Leaf
20	Calendula, Pot marigold		*Calendula officinalis* L.	Flower
21	Camboge		*Garcinia cambogia* (Gaertn.) Desr.	Fruit
			Garcinia atroviridis	

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
22	Camomile,English or Roman		*Anthemisnobilis* L.	Flower
23	Camomile, German or Hungarian		*Matricariachamomilla* L.	Flower
24	Canelo pepper		*Drimyswinteri* J.R. Forst. & G. Forst.	Bark
25	Caper		*Capparisspinosa* L.	Floral Parts
26	Caraway		*Carumcarvi* L.	Seed
27	Cardamon		**Any of the below species**	Fruit/berry
		Bengal cardamom	*Amomumaromaticum*Roxb.	
		Cambodian cardamom	*Amomum krervanh* Pierre ex Gagnep.	
		Cameroon cardamom	*Aframomumhanburyi*K.Schum.	
		Cardamom (Large)/ Black cardamom	*Amomumsubulatum*Roxb.	
		Cardamom (Small)	*Elettariacardamomum*Maton	
		Grain of paradise (Guinea grains, Melegueta pepper, Alligator pepper)	*Aframomummelegueta* (Roscoe) K. Schum.	
		Korarima cardamom	*Aframomumkorarima* (Pereira) Engl.	
		Madagascar cardamom	*Aframomumangustifolium*K.Schum.	
		Round cardamom/Chester cardamom/Siamese cardamom/ Indonesian cardamom	*Amomumkepulaga* Sprague &Burkill	
		Sri Lankan Cardamom	*Elettariacardamomum*var.major (Sm.) Thwaites	
		Tsao-ko Cardamom	*Amomumtsao-ko*Crevost&Lemarié	
28	Celery leaves		*Apiumgraveolens* Dulce	Leaf
29	Celery Seed		*Apiumgraveolens* Dulce	Seed

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
30	Chervil		*Anthriscuscerefolium*Hoffm.	Leav
31	Chilli (equal or greater than 900 Scoville units		*Capsicum* spp.	Fruit with or without Seeds
32	Chilli Paprika (less than 900 Scoville units)		*Capsicum* spp.	Fruit with or without Seeds
33	Chive		*Allium schoenoprasum* Regel & Tiling	Leaf
34	Cinnamon	Indonesian, Padang, Batavia Cassia/Cinnamon Chinese Cassia/Cinnamon Vietnamese, Saigon Cassia/Cinnamon	**Any of the below species** *Cinnamomumburmanii* (Nees& T. Nees) Blume *Cinnamomumcassia*Blume. *Cinnamomumloureirii*Nees	Bark
		Ceylong Cinnamon	*Cinnamomumzeylanicum*Blume	
35	Clove		*Syzygiumaromaticum* (L) Merr.& Perry	Floral Bud
36	Clover		*Trifolium* spp.	Leaf
37	Coriander Leaf		*Coriandrumsativum* L.	Leaf
38	Coriander Seed		*Coriandrumsativum* L.	Seeds
39	Cumin, Brown (Jerra, cumin)		*Cuminumcyminum* L.	Seed
40	Curry Leaf		*Murrayakoenigii*Spreng.	Leaf/Stem
	Dill Seed	Dill Indian Dill	**Any of the below species** *Anethumgraveolens* L. *Anethumsowa*Roxb. ex Fleming	Seeds
	Dill, Leaf	Dill Indian Dill	**Any of the below species** *Anethumgraveolens* L. *Anethumsowa*Roxb. ex Fleming	Leaf
	Elder flowers	Winter savory	**Any of the below species** *Saturejamontana* L. *SaturejaThymbra*L.*SaturejaSpinosa*L	Leaf/Stem

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
		Summer Savory	*Saturejahortensis* L.	
44	Fennel Seed		*Foeniculumvulgare* Mill.	Seeds
45	Fennel Leaf		*Foeniculumvulgare* Mill.	Leaf
46	Fenugreek		*Trigonellafoenum-graecum* L.	Seeds
47	Galangal	 Greater Galangal Galangal	**Any of the below species** *Alpiniagalanga*Willd. *Alpiniaofficinarum*Hance	Roots, Rhizomes, Bulbs
47	Galangal	Galangal Lesser galangal	*Kaempferiagalanga* L. *Alpiniaofficinarum*Hance	
48	Garden Celery		*Apiumgraveolens* L.	Seeds
49	Garlic		*Allium sativum* L. *Allium ampeloprasum* L.	Roots, Rhizomes, Bulbs
50	Geranium		*Pelargonium* spp.	Leaf
51	Ginger		*Zingiberofficinale* Roscoe	Roots, Rhizomes, Bulbs
52	Horehound (hoarhound)		*Marrubiumvulgare* L.	Leaf
53	Horseradish		*Armoracialapathfolia*Gilib.	Roots, Rhizomes, Bulbs
54	Horseradish root		*Armoraciarusticana*G.Gaertn.,B.Mey. &Scherb.	Roots, Rhizomes, Bulbs
55	Hyssop		*Hyssopusofficinalis* L.	Leaf/Stem
56	Japanese mint / field mint / corn mint		*Menthaarvensis* L.	Leaf/Stem
57	Juniper berry		*Juniperuscommunis* L.	Fruit/berry
58	Kaffir Lime		*Citrus hystrix* DC.	Fruit
59	Kokam		*Garciniaindica* (Thouars) Choisy	Fruit/berry
60	Lavender		*Lavandulaofficinalis*Chaix.	Leaf/Flower
61	Leek	 Stony leek/ Welsh onion/ Japanese bunching onion	**Any of the below species** *Allium fistulosum* L.	Entire plant
		Leek / Winter leek	*Allium porrum* L.	
		Indian leek/		

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
		Chinese chive	*Allium ramosum* L *Allium ampeloprasum* L.	
62	Lemon balm		*Melissa officinalis* L.	Leaf
63	Lemon Grass		*Cymbopogoncitratus* (DC.) Stapf	Leaf
64	Linden Flowers		*Tilia*spp.	Flower
65	Lovage Root		*Levisticumofficinale*W.D.J.Koch	Rhizome
66	Lovage Leaf		*Levisticumofficinale*W.D.J.Koch	Leaf/Stem
67	Mace		*Myristicafragrans*Houtt.	Aril
68	Mango Dried		*Mangiferaindica*	Seed
69	Marjoran	 Marjoram Marjoram, sweet Pot marjoram	**Any of the below species** Majoranahortensis, Syn. Origanummajorana *Majoranahortensis*Moench. *Origanumonites* (L.) Benth.	Leaf/Stem
70	Mustard	 Mustard, white or yellow Mustard, brown Mustard, black or brown	**Any of the below species** *Brassica hirta*Moench. *Brassica juncea* (L.) Czern. *Brassica nigra* (L.) Koch. *Sinapis alba* L. *Sinapisnigra* L.	Seed
71	Nutmeg	 Papuan nutmeg	**Any of the below species** *Myristicafragrans*Houtt. *Myristicaargentea*Warb.	Seed
72	Onion	 Potato onion	*Allium cepa* L. *Allium cepa*Aggregatum Group	Roots, Rhizomes, Bulbs
73	Oregano		**Any of the below species**	Leaf/stem
		Mexican oregano	*Lippiaberlandieri*Schauer	
		Mexican oregano	*Lippiagraveolens* H.B.K.	

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
			*Lippiamicromera*Schauer	
		Oregano Oreganum, Mexican Oregano, Mexican Sage, Origan)	*Lippia* spp.	
		Mt. Pima oregano	*Monardacitriodora*Cerv. ex Lag.	
		oregano de la sierra	*Monardafistulosa* L.	
		Italian oregano	*Origanum* ×*majoricum*Cambess.	
		Turkish oregano	*Origanumonites* L.	
		Cretan oregano	*Origanumonites* L.	
		Oikea oregano	*Origanumonites* L.	
		Syrian oregano	*Origanumsyriacum* L.	
		Oregano	*Origanumvulgare* L.	
		Greek oregano	*Origanumvulgare*subsp. *viride*(Boiss.) Hayek	
		Turkestan oregano	*Origanumvulgare*subsp. *viride* (Boiss.) Hayek	
			Origanumvulgare subsp. *Vulgare*	
		Cuban oregano	*Plectranthusamboinicus* (Lour.) Spreng.	
			Poliominthabustamenta B. L. Turner	
		Spanish oregano	*Thymus capitatus* (L.) Hoffmanns. & Link	
74	Pandanwangi		*Pandanusamaryllifolius*Roxb.	Leaf/Stem
75	Parsley		*Petroselinumcrispum* (Mill.) Nym.	Leaf
76	Pepper		**Any of the below species**	Seed
		Black, White, Green Pepper	*Piper nigrum* L.	
		Brazilian pepper	*Schinusterebenthifolius*Raddi	
		Chinese pepper	*Zanthoxylumacanthopodium* DC.	
		Chinese prickly ash pepper/ Sechuang pepper	*Zanthoxylumbungei*Planch.	
		Cubebs	*Piper cubebe*L.	

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
		Grain of paradise (Guinea grains, Melegueta pepper, Alligator pepper)	*Aframomummelegueta* (Roscoe) K. Schum.	
	Pepper	Negro pepper / Guinean pepper pods Pepper (Black, White, Green) Pepper Long Pink pepper Sichuan pepper / Japanese pepper Negro pepper / Guinean pepper pods Canelo pepper West African / Benin pepper	*Xylopiaaethiopica*A.Rich. *Piper nigrum* L. *Piper longum* L. *Schinusmolle*L. *Zanthoxylumpiperitum* (L.) DC. *Xylopiaaethiopica*A.Rich. *Drimyswinteri* *Piper guineenseSchumach*. &Thonn.	
77	Peppermint		*Menthapiperita* L.	Leaf/Stem
78	Pomegranate Seed		*Punicagranatum* L.	Seeds
79	Poppy Seed		*Papayersomniferum* L.	Seed
80	Rosemary		*Rosmarinusofficinalis* L.	Leaf
81	Saffron		*Crocus sativus* L.	Floral Parts
82	Sage	 Sage Clary (Clary Sage) Sage, Greek	**Any of the below species** *Salvia officinalis* L. *Salvia sclarea* L. *Salvia triloba* L.	Leaf Leaf
83	Sesame/ Gingelly		*Sesamumindicum* L.	Seeds
84	Shallot		*Allium ascalonicum* L.	Roots, Rhizomes, Bulbs
85	Spearmint		*Menthaspicata* L.	Leaf/Stem
86	Sri Lankan Citronella		*Cymbopogonnardus* (L.) Rendle	Leaf/Stem
87	Star Anise		*Illiciumverum* Hook. f.	Seed
88	Sumac/Sumach		*Rhuscoriaria* L.	Fruit
89	Sweet flag		*Acoruscalamus* L.	Roots, Rhizomes, Bulbs
90	Tarragon		*Artemisia dracunculus* L.	Leaf/Stem
91	Tejpat (Indian Bay)		*Cinnamomumtamala* (Buch. –Ham.) C. H. Nees&Eberm.	Leaf

PART II – Non exhaustive list of Spices and Culinary Herbs, Arranged by Generic Names				
Sl. No.	**Generic Product**	**Other Product Forms**	**Scientific Name**	**Plant Part Used**
92	Thyme	Creeping thyme / Wild thyme / Mother of thyme	**Any of the below species** *Thymus vulgaris* L. *Thymus serpyllum* L. *Thymus capitatus*L *Thymus zygis* L. *Thymus saturejoides*Coss.	Leaf
93	Turmeric		*Curcuma longa* L.	Roots, Rhizomes, Bulbs
94	Vanilla		**Any of the below species**	
		Pompon vanilla Tahitian Vanilla	*Vanilla pomponа*Schiede *Vanilla tahitensis*J.W.Moore	Pods
95	West Indian bay		*Pimentaracemosa* (Mill.) J.W. Moore	Leaf
96	Zedoary		*Curcuma zedoaria* (Bergius) Rosc.	Roots, Rhizomes, Bulbs

ANNEX II

A. Chemical Properties for Dried Spices and Culinary Herbs							
Product Name	Total Ash %w/w (max)	Acid Insoluble Ash % w/w (max)	Moisture Content %w/w (max)	Volatile Oils mL/100g (min)	Volatile oil markers	Bulk Density	Notes

(The product names are to be chosen from Annex 1. The values of chemical parameters are to be fixed during the standards development under CCSCH)

ANNEX II **B. Physical Properties for Dried Spices and Culinary Herbs**							
Product Name	Whole insects, dead Count /100 gm (max)	Excreta mam-malian mg/kg (max)	Excreta, other mg/Kg (max)	Mold damaged %w/w (max)	Insect defiled/infested %w/w (max)	Extraneous/Foreign matter %w/w (max)	Notes

(The product names are to be chosen from Annex 1. The values of chemical parameters are to be fixed during the standards development under CCSCH)

ANNEX III

COMBINED TABLE OF CHEMICAL AND PHYSICAL PROPERTIES FOR DRIED SPICES AND CULINARY HERBS

Product*				Chemical Properties					Physical Properties					
	Form Style	Classes	Moisture	Bulk Density	Ash %w/w max	Ash insoluble % w/w max	Volatile Oils mL/100g min	Marker compound	Whole insects, dead Count/100gm max	Excreta mammalian mg/Kg max	~~Mold~~ damaged % w/w max	Insect defiled/ infested % w/w max	Extraneous Matter % w/w max	Foreign Matter % w/w max
Black Pepper	Whole	Class I												
		Class II												
		Class III												
	Ground													
White pepper	Whole	Class I												
		Class II												
		Class III												
	Ground													
Green Pepper	Whole	Class I												
		Class II												
		Class III												
	Ground													

(Example - Dried Fruits and Berries)

(Example of Dried seeds)

Product*				Chemical Properties					Physical Properties					
	Form Style	Classes	Moisture	Bulk Density	Ash %w/w max	Ash insoluble % w/w max	Volatile Oils mL/100g min	Marker compound	Whole insects, dead Count/100gm max	Excreta mammalian mg/Kg max	~~Mold~~ damaged % w/w max	Insect defiled/ infested % w/w max	Extraneous Matter % w/w max	Foreign Matter % w/w max
Cumin	Whole													
	Ground													
Fennel	Whole													
	Grouind													