CODEX ALIMENTARIUS COMMISSION

E

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

Agenda item 4.1 **CX/SCH 19/4/4**

August 2018

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON SPICES AND CULINARY HERBS

Fourth Session

Thiruvananthapuram, Kerala, India, 21-25 January 2019

REPORT OF THE ELECTRONIC WORKING ON PROPOSED DRAFT STANDARD FOR DRIED ROOTS, RHIZOMES AND BULBS – SPECIFIC REQUIREMENTS FOR DRIED OR DEHYDRATED GINGER

(Prepared by the electronic working group chaired by Nigeria)

Background

The Codex Committee on Spices and Culinary Herbs (CCSCH) at its 3rd session held on 6th -10th February 2017 in Chennai-India, agreed to recommend to the Commission the consideration and approval of the proposal for new work on Standard for Dried or Dehydrated Ginger.

The strategy for developing horizontal (lateral) group standards to enable the Committee increase its outputs as well as complete its work in a defined time was also recommended by CCSCH3. Based on this, "Dried or Dehydrated Ginger" and "Dried Garlic" were grouped under the "Dried Roots, Rhizomes, Bulbs" group.

Terms of Reference

CCSCH3 also agreed to establish an EWG led by Nigeria and working in English to prepare the specific requirements for the Dried or Dehydrated ginger aspect of the group standard, for circulation for comments at Step 3 and consideration at CCSCH4.

Participation and Methodology

Codex Members and observers interested in participating in the EWG submitted their nominations and were registered in September, 2017. In total, fifteen (15) member countries and two (2) observers, attached as **Appendix II**, registered to participate in the Working Group. The Working Group worked via the Codex online platform.

An initial draft proposed by the Chair of EWG was posted on 8th November, 2017. The second draft was prepared based on comments received on the first draft and was posted on 15th January, 2018 for another round of comments. Six (6) member countries i.e. Mexico, Argentina, USA, Japan, Chile and Nigeria submitted inputs on the drafts which were considered and incorporated in the third draft posted on 16th June, 2018 for further consultations. No comment was received on the third draft.

The Proposed Draft Standard is attached as **Appendix I**.

Analysis of Responses

The standard was developed based on the general concept of group standards and titled "*Proposed draft Standard for dried roots, rhizomes and bulbs - Dried or dehydrated ginger"*. It is hoped that "- Dried or Dehydrated Ginger" would be expunged from this title as the work progresses.

Some members provided different values on certain physical and chemical parameters on dried or dehydated ginger in Annexes I and II respectively:

a. Moisture Content for ground/powder ginger – 11.0 [12.0]

b. Volatile oils for ground ginger – 1.0 [1.5]

c. Whole insects, dead Count/100g for whole and cracked/broken ginger – [0] [4.0]

d. Excreta mammalian for whole and cracked/broken ginger – 0 [3.0] [6.6]

e. Excreta, other for whole and cracked/broken ginger– 0 [3.0] [6.6]

f. Mold damaged for whole and cracked/broken ginger– [0] 1.0 [3.0*]

g. Insect defiled/ infested for whole and cracked/broken ginger– [0] 1.0 [3.0*]

h. Extraneous matter[1] for whole ginger – [0.5] [1] [2.0]

This new values are given under square brackets [ ] and as such submitted to the committee for final discussion and decision.

Recommendation and Conclusion

The Committee is invited to consider the proposed draft attached as **Appendix I,** with the view to progress it through the Codex step procedure.

APPENDIX I

PROPOSED DRAFT STANDARD FOR DRIED ROOTS, RHIZOMES AND BULBS – SPECIFIC REQUIREMENTS FOR DRIED OR DEHYDRATED GINGER

1 SCOPE

This Standard applies to dried roots, rhizomes and bulbs 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 repacking if required. It excludes the product for industrial processing.

2 DESCRIPTION

2.1 PRODUCT DEFINITION

Dried roots, rhizomes and bulbs covered by this standard (Table 1) are sold in forms as indicated in 2.2.

Table 1. Dried Roots, Rhizomes, Bulbs covered by this Standard

S/N	Common name	Scientific Name
1.	Ginger	*Zingiber officinale,* Roscoe

2.2 Styles/forms

Dried Roots, Rhizomes and Bulbs may be:

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

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 COMPOSITION

Dried Roots, Rhizomes and Bulbs as described in Section 2 above and shall conform to requirements set in Annexes II and III.

3.2 QUALITY FACTORS

3.2.1 Odour, flavor and color

Dried Roots, Rhizomes and Bulbs shall have a characteristic aroma, color and flavor which can vary depending on geo-climatic factors/conditions and shall be free from any foreign odour or flavor.

3.2.2 Chemical and physical characteristics

Dried roots, rhizomes and bulbs shall comply with the requirements specified in Annex I (Chemical Characteristics) and Annex II (Physical Characteristics). The defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.

3.2.3. Classification (optional)

In accordance with the Chemical and Physical Characteristics in section 3.2.2, dried roots, rhizomes and bulbs may be classified into the following grades:

- “Extra”
- Grade I/Class I, and
- Grade II/Class II.

When unclassified/ungraded, the provisions for class/grade II requirements apply as the minimum requirements.

The defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.

4 FOOD ADDITIVES

Where applicable, only the anti-caking agents listed in Table III of the *General Standards for Food Additives* (CXS 192-1995) are permitted for use in ground/powdered dried roots, rhizomes and bulbs.

5 CONTAMINANTS

5.1 The products covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS 193-1995).

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)*,*Code of Practice for the Prevention and Reduction of Mycotoxins in Spices (*CXP 78-2017), and other relevant Codex texts.

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 AOAC 2001.12**[**& AOAC 986.21**]** ASTA 2.0	Distillation
Total Ash	ISO 928 **[**AOAC 941.12**]** ASTA 3.0	Gravimetry
Acid Insoluble Ash	ISO 930 **[**AOAC 941.12**]** ASTA 4.0	Gravimetry

Volatile Oil	ISO 6571 AOAC 962.17 ASTA 5.0	Distillation
Extraneous Matter	ISO 927 [AOAC 916.01] ASTA 14.1	Visual Examination
Foreign Matter	[AOAC 960.51] ISO 927	Visual Examination
Insect Damage	Method V-8 Spices, Condiments, Flavors and Crude Drugs (Macroanalytical Procedure Manual, FDA Technical Bulletin Number 5) [*https://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm105731.htm#v-117*]	Visual Examination
[Extractable Colour	American Dried Onion and Garlic Association (ADOGA) method IV.C.5	Chemical extraction]
[Hot Water Insoluble Solids	ADOGA method IV.C.7	Chemical extraction]
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

Chemical Properties for Dried Roots, Rhizomes and Bulbs							
Product Name	**Forms/ Styles**	**Total Ash %w/w (max)**	**Acid Insoluble Ash %w/w (max)**	**Moisture Content %w/w (max)**	**Volatile Oils mL/ 100g (min)**	**Water Soluble Extract Cold (%) (w/w) (min)**	**Notes**
Ginger	Whole/ Cracked/ Broken	8.0	2.0	12.0	1.5	-	1.1% Calcium (as oxide)on dry basis by mass, max %, for unbleached. 2.5% Calcium (as oxide) on dry basis by mass, max %, for bleached.
	Ground/Powder	8.0	2.0	11.0 [12.0]	1.0 [1.5]	10	

Annex II

Physical Properties for Dried Roots, Rhizomes and Bulbs									
Product Name	**Forms/ Styles**	**Whole insects, dead Count/100g (max)**	**Excreta mammalian mg/kg (max)**	**Excreta, other mg/Kg (max)**	**Mold damaged %w/w (max)**	**Insect defiled/ infested %w/w (max)**	**Extraneous matter[1] %w/w (max)**	**Foreign matter[2] %w/w (max)**	**Notes**
Ginger	Whole	[0] [4.0]	0 [3.0] [6.6]	0 [3.0] [6.6]	[0] 1.0 [3.0*]	[0] 1.0 [3.0*]	[0.5] [1] [2.0]	0.5	
	Cracked/ Broken	[0] [4.0]	0 [3.0] [6.6]	0 [3.0] [6.6]	[0] 1.0 [3.0*]	[0] 1.0 [3.0*]	1.0	0.5	
	Ground	0	0	0	0	0	1.0	0.5	

[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"

*[*The combined defects for mold damage and insect defiled should not exceed 3.0%.]*

LIST OF PARTICIPANTS

Member/observer	Representatives
Argentina	**María Florencia Demarco** IngenieraAgrónoma fdemarco@senasa.gob.ar;
Brazil	**André Bispo Oliveira** Ministry of Agriculture, Livestock and Food Supply – MAPA andre.oliveira@agricultura.gov.br
Chile	**Constanza Miranda,** ACHIPIA (AgenciaChilena para la Inocuidad y Calid.
Cyprus	**Mr. EfstathiosEvangelides** Agricultural Officer Department of Agriculture sevangelides@da.moa.gov.cy
Egypt	**Ahmed ELHELW** Egyptian Organization for Standardization & Quality (EOS) helws_a@hotmail.com
Greece	**Danai Papanastasiou,** Hellenic Food Authority, dpapanastasiou@efet.gr
India	**Dr Anand,** Spices Board; email: r.anand889@nic.in; **Dr. M. Madhava Naidu,** CSIR-CFTRI; mmnaidu@cftri.res.in; **Mr. Prakash Selvaraj,** ITC Ltd, prakash.selvaraj@itc.in;
Iran	**Fakhrisadat Hosseini,** AlzahraUniversity. sadat77@gmail.com **Azade Raeesdana,** Iran Medical University. omsk110@yahoo.com **Mojgan Pourmoghim,** Health administration. mpourmoghim@yahoo.com **Arasteh Alimardani,** NovinSaffronCompany qc@novinsaffron.com
Japan	**Mr. Satoru SOENO,** Food Manufacture Division, Food Industry Affairs Bureau. satoru_soeno270@maff.go.jp **Mr. Shigefumi ISHIKO,** Food Manufacture Division, Food Industry Affairs Bureau. shigefumi_ishiko180@maff.go.jp, codex_maff@maff.go.jp

Mexico	Tania Daniela fosado Soriano Secretaría de Economía
Nigeria	**Mrs. Chinyere V. Egwuonwu,** Director, Standards Development Standards Organisation of Nigeria chiokeyegwu@yahoo.com; **Mrs. Margaret E. Eshiett,** megesciett@yahoo.com; **Mr. Babajide E. Jamodu,** Standards Organisation of Nigeria jjamodu@yahoo.com; **Codex Contact Point (Nigeria),** codexsecretariat@son.gov.ng;
Poland	**Ms Anna Gierasimiuk** Specialised laboratory in Gdynia Main Inspectorate of Agricultural and Food Quality pam@ijhars.gov.pl, kodeks@ijhars.gov.pl
Russia	**Irina Sedova,** Laboratory of Enzimology of Nutrition of Federal Research Center of Food, Biotechnology and Food Safety. isedova@ion.ru;
United Kingdom	**Rob Jackson,** Policy Adviser, Department for Environment, Food and Rural Affairs. robert.jackson@defra.gsi.gov.uk
US	**Ms Marie Maratos** International Issues Analyst U.S. Codex Office U.S. Department of Agriculturemarie. maratos@fsis.usda.gov; **George C Ziobro,** The Food and Drug Administration.
FoodDrink Europe	**Eoin Keane** Manager Food Policy, Science and R&D Tel: 32 2 5008756 **e.keane@fooddrinkeurope.eu**
International Organization of Spice Trade Associations (IOSTA)	**Cheryl Deem,** Secretariat. cdeem@astaspice.org;