

CODEx ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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CL 2017/81-CPL
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TO Codex Contact Points
Contact Points of international organizations having observer status with Codex

FROM Secretariat,
Codex Alimentarius Commission,
Joint FAO/WHO Food Standards Programme

SUBJECT Request for comments at step 6 on the draft standard for quinoa

DEADLINE 6 October 2017

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BACKGROUND

1. The 40th Session of the Codex Alimentarius Commission¹ (CAC40) adopted the proposed draft Standard for Quinoa at Step 5 and requested that the Codex Committee on Contaminants in Foods consider including quinoa in the maximum levels for lead and cadmium in cereals in the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995). The Commission also agreed to establish an electronic working group (EWG), chaired by Plurinational State of Bolivia and co-chaired by the United States of America, to continue the work and address the outstanding issues. The EWG would work in English and Spanish.
2. Bolivia and the United States of America, as Chair and co-Chair of the EWG respectively, have revised the standard contained in CL2017/44-CPL based on the comments submitted to CAC40 as compiled in CX/CAC17/40/6-Add.1 and CRD4. The revised draft standard for quinoa is presented in Annex I. The analysis of comments to CL 2017/44-CPL including the recommendations of Chairs of the EWG is attached as Annex II.

REQUEST FOR COMMENTS

3. Codex members and observers are invited to send their comments at Step 6 on the revised draft standard for quinoa. Particular attention should be paid to those sections in square brackets that require further consideration by the Codex Committee on Cereals, Pulses and Legumes (CCCPL).

¹ REP17/CAC para 81

PROPOSED DRAFT STANDARD FOR QUINOA

(At Step 6)

1 Scope

1.1 This standard applies to quinoa (*Chenopodium quinoa* Willd.) as defined in Section 2, suitable for human consumption, packaged or in bulk.

1.2 It does not apply to quinoa used as seeds for propagation, products derived from quinoa (e.g., flour, flakes).

2 Description

2.1 Definition of the Product

Quinoa is the grain obtained from *Chenopodium quinoa* Willd.

2.2 Processed Quinoa

Processed quinoa are quinoa grain that have been subjected to cleaning (e.g., eliminating impurities, removing saponin-containing pericarp) and sorting (e.g. by color and size).

3 Essential Composition and Quality Factors

3.1 Quality factors - general

3.1.1 Quinoa shall be safe and suitable for human consumption.

3.1.2 Quinoa shall be free from abnormal flavours, odours living insects and mites.

3.1.3 [Quinoa color should be a characteristic of the variety, for example white (pearly, pale, grayish), black, red, golden, brown, yellow, orange.]

3.2 Quality factors - specific

3.2.1 Moisture content. 13.5% [13%] [12.5%] maximum.

3.2.2 Extraneous matter

3.2.2.1 Extraneous matter is all organic and inorganic materials other than quinoa.

3.2.2.2.1 Organic extraneous matter includes husks, stem parts, impurities of animal origin, other seed species, and leaves. 0.1% maximum.

3.2.2.2.2 Inorganic extraneous matter includes stones, plastics. 0.1% maximum.

3.2.2.2.3 [Metals and glass shall not be present.]

3.2.3 Defect

3.2.3.1 Definition of defect

3.2.3.1.1 Broken Grains are pieces of grains with sizes less than three quarters of the whole grain, resulting from mechanical action.

3.2.3.1.2 Damaged Grains are grains that differ from others in their form or structure, because they have been altered by physical, chemical or biological agents.

3.2.3.1.3 Germinated Grains are grains that show development of the radicle (embryo) after processing.

3.2.3.1.4 Coated Grains are grains that retain the shell (perigone) or part of the flower attached to the grain after processing.

3.2.3.1.5 Immature Grains are grains that have not reached physiological maturity, characterized by small size and greenish coloration.

3.2.4 Tolerances

Requirements	Maximum Limit [%]
Broken Grains	3%
Damaged grains	2.5%
Germinated Grains	0.5%
Coated Grains	0.3%
Immature Grains	0.9%

3.2.5 Protein Content

Requirements	Minimum Limit [%]
Protein	10%

3.2.6 Saponin Content

Requirements	Maximum Limit [%]
Saponin	[0.12%]

3.2.7 Size

Grain Size	Range [mm]
Extra Large	Greater than 2 mm
Large	Greater than 1.7 to 2 mm
Medium	1.4 to 1.7 mm
Small	Less than 1.4 mm

4 Food additives

The use of additives is not permitted.

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. Pesticide residues

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

6 Hygiene

6.1 It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CAC/RCP 1-1969) 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 related to Foods* (CAC/GL 21-1997).

7 Packaging

7.1 Quinoa shall be packaged in containers which will safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product.

7.2 The packaging shall be safe and suitable for the intended use and shall not transfer toxic materials, unpleasant odours or flavours to the product. All the materials used inside the packaging shall be of food grade, clean, new and of an adequate quality so as not to cause damage to the product.

8 Labelling

The products covered by this standard shall be labelled in accordance with the *General Standard for the Labelling of Pre-packaged Foods* (CODEX STAN 1-1985).

8.1 Name of the Product

The product name appearing on the label shall be "quinoa" or "processed quinoa." Optional information, such as product origin, quality, color, may be included.

8.2 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 or packer shall appear on the container. However, lot identification, and the name and address of the manufacturer or packer may be replaced by an identification mark, provided that such a mark is clearly identifiable with the accompanying documents.

9 Methods of analysis and sampling²

See relevant Codex texts on methods of analysis and sampling.

	Method	Principle	Type³
Moisture content	[ISO 712]	Gravimetric	1
[Saponin Content	To Be Determined]		
Protein Content [(N x 6.25)] Dry weight basis	[ISO 1871]	Titrimetry, Kjeldahl	1

² The listing of methods of analysis and sampling will be removed when the standard is adopted by CAC and included in CODEX STAN 234-1999.

³ CAC Procedural Manual, 25th Edition, page 77.

ANALYSIS OF COMMENTS TO CL 2017/44-CPL**3.1.3 Color**

1. One country requested to further review the statement "Quinoa color should be characteristic of each variety."

3.2.1 Moisture Content

2. Three member countries recommended a maximum humidity content of 12.5%, one member and one observer recommended a value of 13% and two member countries agrees with the value of 13.5%.

3.2.2.2.3 Metals and glass shall not be present

3. One member country requested the elimination of the entire sentence. It is considered redundant, since in the document General principles of food hygiene, CAC / RCP 1 -1969, is already considered at the point Physical Pollution and Chemistry

3.2.6 Saponin Content

4. Two member countries observed that, for flavor reasons, the level of saponin should be lower in a range of 0.04% and 0.05%,

5. One member country suggested to divide the saponin requirements for the different types of quinoa, native quinoa 0.12% and processed quinoa 0.05% and

6. One member country agrees with the value of 0.12%

3.2.7 Size

7. A member country suggests eliminating the extra large size because it is not found in all countries and suggested a range of values greater than 1.2 mm and less than 1.4 mm for small size

9 Methods of analysis and sampling

8. A member country suggested to maintain the table on Method of analysis and sampling because the proposed methods are in the process of validation

9. A member observer suggested incorporating the value of 6.25 as a factor of calculation of the protein

10. One member country asked to clarify that the protein is calculated on a "dry basis"

11. A member country observed the absence of the saponin method. If the method cannot be agreed upon, the entire line should be removed or bracketed: [Saponin content to be determined].