

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda item 13

CX/CF 24/17/13 Add. 1

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ORIGINAL LANGUAGE ONLY

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON CONTAMINANTS IN FOODS

17th Session

15-19 April 2024

Panama City, Panama

CADMIUM AND LEAD IN QUINOA

Comments in reply to CL 2024/28-CF

submitted by

Bolivia, Canada, Chile, Ecuador, Egypt,

Iraq, Japan, Panama, Peru, United Arab Emirates and USA

Background

1. This document compiles comments received through the Codex Online Commenting System (OCS) in response to CL 2024/28-CF¹ issued in February 2023.

Explanatory notes on the appendix

2. The comments submitted through the OCS are hereby annexed and presented in tabulated format.

¹ <https://www.fao.org/fao-who-codexalimentarius/resources/circular-letters/en/>
<https://www.fao.org/fao-who-codexalimentarius/committees/committee/related-circular-letters/en/?committee=CCCF>

ANNEX**GENERAL COMMENTS**

COMMENT	MEMBER / OBSERVER
<p>El Estado Plurinacional de Bolivia, agradece el trabajo realizado y en base a la solicitud presentada, apoya los siguientes niveles máximos:</p> <p>NM para cadmio 0.2 mg/kg NM para plomo 0.2 mg/kg</p> <p>Estos valores han sido consensuados con el Sector Industrial, autoridades competentes de control.</p>	Bolivia
<p>The submitted metals datasets were suitable to conduct impact, exposure and risk assessment (n>500 for both cadmium and lead).</p> <p>Based on the assessment and conclusions of the Joint FAO/WHO JECFA Secretariats, MLs for cadmium and lead in quinoa are not needed for exposure reduction purposes. Not having MLs for these metals in quinoa is not a trade irritant for Canada, however, if it is for other countries, Canada would support ML elaboration.</p> <p>If more robust global consumption data for quinoa becomes available, and if it is discovered that quinoa consumption rates are higher than those assumed in CX/CF 24/17/13, the assessment could be updated to explore if different conclusions would be reached based on the results.</p>	Canada
<p>Chile revisó las recomendaciones de esta carta circular y el documento CX/CF 24/17/13. Al respecto,</p> <p>Chile quisiera emitir los siguientes comentarios:</p> <ul style="list-style-type: none"> - El cuadro 3 debe ser corregido, ya que se indica las columnas 4 a la 7 al metal Plomo, y corresponde a Cadmio. - En el mismo cuadro 3, en la columna "Exposición al Plomo (Corregir Cadmio) de la quinoa en el P95, se deben corregir las unidades, ya que se indica que los valores informados corresponden a µg/kg/pc/día y lo que se informa corresponde a µg/kg/pc/mes - Solicitamos entregar mayor detalle respecto de cómo se determinó la exposición dietética por consumo de Cadmio a partir de quinoa informado en el párrafo 18 para personas vegetarianas de 23,2 µg/kg de peso corporal /mes ya que el valor es muy superior al P95 informado en cuadro 3 para consumidores generales y muy cercano a la IMTP JECFA82 para Cadmio (25 µg/kg/pc/mes). 	Chile
<p>En virtud del resultado de las evaluaciones llevada a cabo por las Secretarías FAO/OMS del JECFA, en donde se concluye que, en términos de protección de los consumidores y del comercio, imponer un nivel máximo de 0,1 o 0,2 mg/kg para el cadmio y plomo en los cereales en grano de quinua tendría poco impacto en la exposición dietética al cadmio y plomo de la población en general respecto a la situación actual, en la que no existe un NM del Codex.</p> <p>A fin de establecer prácticas equitativas en el comercio mundial de alimentos, Ecuador apoyaría el NM de 0,2 mg/kg para el cadmio y plomo en la quinua, resaltando que estos NM protegen la salud del consumidor y proporción de granos de quinua rechazados estarían en los valores de 0,2% y 0,4%, respectivamente, lo cual está enmarcado en el P95.</p> <p>Además, se insta a revisar el párrafo 24 del documento CX/CF 24/17/13, puesto que los datos no coinciden con los citados en el cuadro que hace referencia.</p>	Ecuador

<p>Egypt supports to establishment a separate MLs for cadmium and lead in quinoa, and agrees the following MLs which proposed by the JECFA Secretariat :</p> <ul style="list-style-type: none"> - 0.1 mg/kg for cadmium - 0.2 mg/kg for lead 	Egypt
<p>Extend the MLs for cadmium and lead in cereal grains to quinoa</p>	Iraq
<p>Though considering the criteria for setting MLs stipulated in the GSCTFF (CXS 193) and the data analysis by the JECFA Secretariat the setting MLs for cadmium and lead in quinoa may not be high priority, the setting MLs is justified as quinoa has high nutritional value and is also used as an ingredient in foods for infants and young children, and further increase in consumption and international trade is expected in the future. As a lot of occurrence data has been submitted to GEMS/Food, including from producing countries, and it is possible to set MLs based on the ALARA principle, Japan considers that there is enough evidence to establish MLs.</p> <p>Japan supports extending the ML for lead in cereal grains to quinoa. Considering the data analysis on impact assessment on dietary exposure to lead and rejection rates in the international trade by enforcement of an ML for lead in quinoa in CX/CF 24/17/13, 0.2 mg/kg would be appropriate.</p> <p>Japan is an importer of quinoa, and although we consider that contamination should be as low as possible, we consider that 0.2 mg/kg may be appropriate for the ML of cadmium in quinoa, separate from the ML of cereal grains, for the following reasons.</p> <ul style="list-style-type: none"> • Cadmium contamination of agricultural products, unlike lead, is mainly due to absorption from the soil. • Codex MLs for cadmium in agricultural products has been discussed by CCCF in the past (most recently for cocoa products), and it is recognised that there are areas where high cadmium concentrations in agricultural products are inevitable due to geographical reasons, such as volcanic soils. • The main producing countries of quinoa are known to be volcanic countries. • The violation rate is 5% when 0.1 mg/kg, the same ML as cereal grains, is applied, and it is assumed that the violation rate could be higher depending on geographical reasons. • A Code of Practice for cadmium has not yet been developed in Codex (to be discussed under agenda item 16). • Table 4 in CX/CF 24/17/13 indicates that impact on dietary exposure to cadmium for the general population are almost the same by enforcing an ML of 0.1 mg/kg or 0.2 mg/kg.” 	Japan
<p>Panama appreciates the work carried out and agrees with the document presented and its content, we consider it important to advance this work to its next stage.</p> <p>Panamá agradece el trabajo realizado y está de acuerdo con el documento presentado y del contenido del mismo, consideramos importante el avance de este trabajo a su siguiente etapa.</p>	Panama

<p>El Perú agradece a la Secretaría de la Comisión del Codex Alimentarius y al JECFA, por el esfuerzo emprendido a la fecha y al trabajo realizado sobre cadmio y plomo en quinua establecido en documento CX/CF 24/17/13 que figura en la página web de la 17.ª reunión del Comité del Codex sobre Contaminantes de los Alimentos (CCCF), y en atención y respuesta al documento CL 2024/28-CF Perú expresa su apoyo a los siguientes niveles máximos:</p> <p>CADMIO Nombre del producto: Quinua Nivel máximo (NM) 0.20 Mg/kg Comentario Aceptar este NM considerando que la tasa de rechazo a nivel global es de 0.2%</p> <p>PLOMO Nombre del producto: Quinua Nivel máximo (NM) 0.20 Mg/kg Comentario Aceptar este NM considerando que la tasa de rechazo a nivel global es de 0.4%</p> <p>0 0</p>	<p>Peru</p>
<p>United Arab Emirates, believe that there is an urgent need to establish separate MLs for lead and cadmium in Quinoa. United Arab Emirates, requests to be provided with the study conducted by the JECFA committee, to in-depth understanding the scientific basis of the maximum limits proposed by the committee. On the other hand, and in case that there is no agreement to establish separate MLs for Lead and Cadmium in Quinoa, United Arab Emirates, support the proposal to extend the MLs for cadmium and lead in cereal grains to Quinoa, but not to extend the MLs for cadmium and lead in dried spices and in culinary herbs to Quinoa, due to the following reasons:</p> <ul style="list-style-type: none"> · To apply (Include) the Quinoa in cereal grain category mentioned in General Standard For Contaminants And Toxins In Food And Feed Codex Stan 193- 195, Amended in 2021, regarding extend the ML 0.1 mg/kg for Cadmium in cereal grains to Quinoa. · To apply (Include) the Quinoa in cereal grain category mentioned in General Standard For Contaminants And Toxins In Food And Feed Codex Stan 193- 195, Amended in 2021, regarding extend the ML 0.2 mg/kg for Lead in cereal grains to Quinoa · The differences in consumption rates between Quinoa and dried spices and in culinary herbs. Justifications: <p>1) To be compatible with the statement which mentioned in item (5 (CONTAMINANTS, sub item (5.1 (in Codex STANDARD FOR QUINOA, CXS 333-2019, Adopted in 2019. Amended in 2020, The product 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).</p>	<p>United Arab Emirates</p>

<p>2) The increasingly trend to consume Quinoa to get several potential benefits such as:</p> <ul style="list-style-type: none"> · Quinoa considered an excellent grain option for people with celiac disease CD, Quinoa contains low concentrations of gluten and has a distant phylogenetic link with gluten-containing cereals (wheat, rye and barley). This prompted consideration of quinoa as a naturally gluten-free product, suitable for patients with CD, (STATE OF THE ART REPORT ON QUINOA around the world in 2013) · Getting optimal digestion due to high fibres content in whole-grain quinoa. · Quinoa's magnesium content is very high in comparison to other grains, and to get the benefits of Magnesium, the mineral considered crucial to the body's function. <p>3) Lead exposure is associated with a wide range of toxic effects, including neurodevelopmental effects such as decreases in IQ and attention span in children, impaired renal function, hypertension, cardiovascular disease, impaired fertility, and adverse pregnancy outcomes. Fetuses, infants, and children are the subgroups that are most sensitive to lead. Based on the conclusions of the 73rd JECFA Meeting about dietary lead exposure in 2011, there is no safe level of lead. So, measures should be taken to identify major contributing sources and, if appropriate, to identify methods of reducing dietary exposure.</p> <p>4) Cadmium (Cd) is a toxic non-essential transition metal that poses a health risk for both humans and animals. It is naturally occurring in the environment as a pollutant that is derived from agricultural and industrial sources. Exposure to cadmium primarily occurs through the ingestion of contaminated food and water and, to a significant extent, through inhalation and cigarette smoking.</p>	
<p>The United States concludes that there is enough evidence to establish MLs for both cadmium and lead in quinoa. While the demonstrated benefits of adopting MLs appear to be somewhat small, reducing levels and exposure to cadmium and lead are important goals.</p> <p>For cadmium, the United States would not object to an ML of 0.1 mg/kg, which corresponds to a rejection rate of 4.7%. The United States would also appreciate further information from JECFA for CCCF17 on the rejection rate at 0.15 mg/kg.</p> <p>For lead, the United States would not object to an ML of 0.1 mg/kg, which corresponds to a rejection rate of 3.8%. The United States would also appreciate further information from JECFA for CCCF17 on the rejection rate at 0.15 mg/kg.</p>	<p>USA</p>