

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 13

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ORIGINAL LANGUAGE

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON CONTAMINANTS IN FOODS

17th Session
15-19 April 2024

Comments submitted by WHO

Agenda Item 13: Request for comments on the recommendation for the establishment of maximum levels for cadmium and lead in quinoa

Please note the following changes in CX/CF 24/17/13, Table 1, Table 2 adding ML equal to 0.15 under the section 'Occurrence data', and Table 3, under the section 'Dietary Exposure Estimates', as indicated below in underline and strikethrough:

OCCURRENCE DATA

Table 1: distribution of concentration levels of cadmium in quinoa (in mg/kg)

ML (mg/kg)	No. of individual samples	% <LOD	Mean	P50	P75	P95	P97.5	Max	Proportion of quinoa grains rejected (%)
No ML	516	7.9	0.05	0.05	0.06	0.09	0.13	0.59	0
ML= 0.2	515		0.05	0.05	0.06	0.09	0.13	0.19	0.2
ML= 0.15	512		0.05	0.05	0.06	0.09	0.13	0.15	0.8
ML=0.1	492		0.04	0.04	0.06	0.08	0.09	0.10	4.7

Table 2: distribution of concentration levels of lead in quinoa (in mg/kg)

ML (mg/kg)	No. of individual samples	%<LOD	Mean	P50	P75	P95	P97.5	Max	Proportion of quinoa grains rejected (%)
No ML	529	59	0.02	0.01	0.03	0.08	0.13	0.24	0
ML=0.2	527		0.02	0.01	0.03	0.06	0.13	0.15	0.4
ML=0.15	525		0.02	0.01	0.03	0.06	0.13	0.14	0.8
ML=0.1	509		0.02	0.01	0.03	0.04	0.05	0.10	3.8

DIETARY EXPOSURE ESTIMATES**Cadmium**

17. Table 3 presents the estimates of dietary exposure and the risk characterization to cadmium for consumers of quinoa grain. Impact of different proposed MLs for quinoa grain on the dietary exposure and risk characterization is provided for discussion at CCCF.

Table 3: Dietary exposure to cadmium from the consumption of quinoa grain in adults and children consumers, risk characterization and impact of different proposed MLs.

Cadmium: PTMI JECFA 82 (25 µg/kg/bw/month)	Population	mean consumer of quinoa grain (g/kg bw/d)	P95 consumer of quinoa grain (g/kg bw/d)	mean exposure to cadmium lead from quinoa (µg/kg bw/ month)	P95 exposure to cadmium lead from quinoa (µg/kg bw/ month)	Risk characterization of cadmium lead from quinoa: mean (% PTMI)	Risk characterization of cadmium lead from quinoa: P95 (% PTMI)
No ML	Adult	0.65	1.30	0.98	1.95	4%	8%
	Children	0.73	1.45	1.09	2.18	4%	9%
ML = 0.2	Adult	0.65	1.30	0.98	1.95	4%	8%
	Children	0.73	1.45	1.10	2.18	4%	9%
ML = 0.1	Adult	0.65	1.30	0.78	1.56	3%	6%
	Children	0.73	1.45	0.88	1.74	4%	7%