

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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CL 2018/73-CF
August 2018

TO Codex Contact Points of Member Countries
Contact Points of International Organizations having Observer Status with Codex

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

SUBJECT **Request for comments and information on management practices for the prevention and reduction of cadmium contamination in cocoa and cocoa products**

DEADLINE 31 October 2018

COMMENTS **To:**

National Agrarian Health Service (SENASA)
Peru
Email: jaguilar@senasa.gob.pe

Codex Contact Point of Peru
General Directorate of Environmental Health (DIGESA)
Ministry of Health
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Agency for Regulation and Phyto and Zoosanitary Control - AGROCALIDAD
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Copy to:

Secretariat
Codex Alimentarius Commission
Joint FAO/WHO Food Standards Program
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BACKGROUND

1. At CCCF¹12 (2018) Peru stressed the usefulness of administering a survey to gather information on validated practices throughout the food chain for the prevention and reduction of cadmium contamination in cocoa and cocoa products prior to deciding on new work on the development of a COP². To gather this information, CCCF agreed that a CL³ will be prepared for the survey for such practices and distributed by the Codex Secretariat for comments and information by Codex members and observers. The JECFA⁴ Secretariat requested to pay a particular attention to mitigation measures that are feasible for small-scale farmers to apply since they are the ones affected most by this issue.
2. CCCF12 thus agreed to re-establish the EWG⁵ chaired by Peru and co-chaired by Ecuador and Ghana to (i) determine whether mitigation measures available at present will support the development of a COP and (ii) identify the scope of the COP (e.g. whether the COP can cover the whole or part of the food chain) based on the replies provided to this CL.⁶
3. It is convenient that the scope of the COP include the entire value chain i.e. primary production (cocoa beans), intermediate products (cocoa liquor, cocoa butter) and finished products (chocolates, cocoa powder). Mitigation measures provided in reply to this CL should be proven to be feasible, cost-effective and applicable regionally or worldwide by large, medium and small-scale producers.

¹ Codex Committee on Contaminants in Foods

² Code of practice

³ Circular Letter

⁴ FAO/WHO Joint Expert Committee on Food Additives

⁵ Electronic Working Group

⁶ [REP18/CF](#), paras 141-146

4. It is noted that the [GSCTFF](#)⁷ (CXS 193-1995) states that the levels of contaminants in food and feed should be as low as reasonable achievable by implementing best practices such as GAPs⁸ and GMPs⁹ after an appropriate risk assessment.
5. The COP will therefore compile measures to prevent and reduce the cadmium concentration in cocoa beans and cocoa products based on scientific evidence and will include as available through this CL: agricultural measures, post-harvest measures (fermentation, drying, storage) and industrial processing measures.
6. The completion of the COP will help to reduce cadmium contamination in cocoa and cocoa products and will facilitate the application and compliance with the MLs¹⁰ for cadmium in chocolates and chocolate products adopted by CAC¹¹.

REQUEST FOR COMMENTS

7. Codex members and observers are kindly invited to provide data and information on best management practices currently available that have proven to be feasible, cost-effective and applicable regionally or worldwide at small, medium and large scale production to prevent and reduce cadmium contamination in cocoa and cocoa products such as the following in the Annex.
8. Information on any measure in operation in other phases and any other relevant information will be appreciated (for example practices on BIOREMEDIATION, PHYTOREMEDIATION, etc.) to complement / strengthen the practices described in paragraph 7.
9. In providing comments, Codex members and observers are invited to take into account the information already available in the discussion paper¹² presented at CCCF12 to further develop the discussion paper and if feasible to submit a project document for a new work on the development of a COP.
10. Comments should be submitted in word file to facilitate their compilation and analysis by the EWG.

⁷ General Standard for Contaminants and Toxins in Food and Feed

⁸ Good Agricultural Practices

⁹ Good Manufacturing Practices

¹⁰ Maximum levels

¹¹ Codex Alimentarius Commission

¹² [CX/CF 18/12/16](#)

ANNEX**Field Production**

	Note for the information presentation
Summary of the demonstrated measure	Summary (principles and technologies) of measures that have proven effective in preventing or reducing contamination in cocoa by cadmium under real agricultural conditions.
Detailed description of the measure	Detailed description of the measure
Location of the application/study	Describe the location of the application / study, providing the address, temperature data and other important data (for example: soil type, pH, etc.) if it be the case.
Years of study	Describe the initial year and the year of completion.
Study area and size of the plot where the measure has been applied/studied and where samples have been taken	Describe the size of the plot, preferably length (m) x width (m) and conditions of the study area if applicable.
Cocoa variety	Describe the variety of cocoa (for example: native or "criollo", Fine of Aroma and flavor, forastero, trinitario, CCN51, etc.). Determination of low absorption cocoa clones and cadmium accumulation, if it is available.
Planting time	Describe the planting date (day, month and year).
Sampling dates with respect to the application of the measure (for example, one year before and 3 years after)	Describe the sampling period in relation to the application of the measurements shown in the left column.
Number of samples taken	Describe the number of samples taken from cocoa beans in the field.
Concentrations of cadmium in the samples (total cadmium, when available) before and after applying the measures.	Describe the analytical results of total cadmium in mg/kg. Indicate the time of sampling and if the samples are of cacao with testa or without testa (if you had that information). Describe the analytical method.
Levels in soil and water, if available	If data are available, describe the total of cadmium (in mg/kg) in the soil where the samples were taken and in the water used for irrigation. Describe the analytical method.

Postharvest (fermentation, drying and storage processes)

	Note for the presentation of the information
Summary of the demonstrated measure	Summary (principles and technologies) of the measure that has proven to be effective in preventing and/or reducing contamination in cocoa by cadmium.
Detailed description of the measure	Detailed description of the previous statement
Location of the application/study	Describe the location of the application/study, providing the address, average temperature and other important data.
Years of study	Describe the initial year and the year of completion
Cocoa variety	Describe the variety of cocoa (for example: Fine of flavor, CCN51, etc.). Determination of low absorption and cadmium accumulation by cocoa clones if available.
Number of samples taken	Describe the number of samples of cocoa beans taken.
Cadmium concentrations in the samples (total cadmium) before and after applying the measures	Describe the analytical results of total cadmium in mg/kg. Indicate the sampling time (in which stages of the process). Describe the analytical method.

Processing (cocoa liquor, cocoa butter, chocolates and cocoa powder)

	Note for the information presentation
Summary of the demonstrated measure	Summary (principles and technologies) of the measure that has proven effective in preventing or reducing contamination in the cocoa product by cadmium.
Detailed description of the measure	Detailed description of the previous statement
Location of the application/study	Describe the location of the application/study, providing the address, average temperature and other important data
Years of study	Describe the initial year and the year of completion
Cocoa variety	Describe the variety of cocoa (for example: Fine of flavor, CCN51, etc.). Determination of low absorption and cadmium accumulation by cocoa clones if available.
Number of samples taken	Describe the number of samples taken from the cocoa product.
Cadmium concentrations in the samples (total cadmium) before and after applying the measures	Describe the analytical results of total cadmium in mg/kg. Indicate the sampling time (in which stages of the process). Describe the analytical method.