

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 6

CRD13

May 2022

ORIGINAL LANGUAGE

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON CONTAMINANTS IN FOODS

15th Session

Virtual

9-13 and 24 May 2022

Comments of Brazil

Agenda Item 6: CX/CF 22/15/6

Brazil appreciates the work done by Peru on elaborating the COP to reduce cadmium in cocoa beans. We have the following considerations on the document as presented on CX/CF22/15/6.

On the definitions section, we believe that the definition of cachaza should be excluded, as it may cause confusion with a typical Brazilian beverage made from sugarcane.

~~Cachaza: By product of sugar cane.~~

Brazil suggests that the mentions of chachaza on the COP should be replaced by “sugarcane cake” as the term is already mentioned on paragraph 36. In this sense, the mentions of cachaza should be also replaced by “sugarcane cake”. The term cachaza is mentioned on the definition of soil amendments and on paragraph 34.

Soil Amendments: Any material added to the soil to improve its physical and chemical properties. The application of amendment depends on the characteristics of the soils, and may include compost, livestock manure, magnesium sulfate, vinasse, zeolite (minerals or adsorbents that hydrate and dehydrate reversibly); charcoal or biochar; calcium sulphate, lime, ~~cachaza~~ **sugarcane cake**, zinc sulphate, dolomite (calcium magnesium carbonate), vermicompost, sugar cane, palm kernel cake, phosphate rock, and other organic matter.

Another possibility would be to amend the definition so it does not cause confusion with the beverage.

Brazil believes that shading definition should be deleted as the term is mentioned only on paragraph 17 and this paragraph does not add information on measures to reduce cadmium content on plants.

~~Shading: Growing cocoa plants with shade trees to reduce the amount of solar radiation and wind that reaches the crop. Shading is usually more or less 50% during the first 4 years of plant life after which the percentage of shade can be reduced to 25 or 30%.~~

Paragraph 16 mentions that there is no difference between agroforestry and monoculture. In this sense, paragraph 17 should be deleted as it does not add information on measures to reduce cadmium content on plants.

~~17. In agroforestry the most commonly used shade plant species with cacao trees are Musaceae (bananas, moles and cambures) for temporary shade in early cacao establishment and legume trees such as the pore or bucare (Erythrina sp.) and guabas (Ingas) for permanent shade trees. Other shading plant species used that provide greater economic benefits include timber species (e.g. laurel, cedar, Colombian mahogany (Cariniana pyriformis), cenizaro or rain tree and terminalia) and / or fruit trees (e.g. citrus, avocado, sapote, breadfruit, date palm). It is advisable to plant short shade trees and use citrus or fruit trees for the borders of cacao plantations.~~

Paragraph 23: remove (e.g. endorsed by Codex). There is no method to analyze soil that was endorsed by Codex

Paragraph 29: As pH higher than 7 can cause problems on absorption of desirable minerals and micronutrients, it seems important to add on the paragraph a mention that the pH should be carefully considered so it does not have a huge impact on the absorption of desirable minerals and micronutrients.

29. Soil pH should be managed with a goal of $\text{pH} > 6$, and if Cd levels are a problem for the soil, a higher pH may be needed to reduce Cd accumulation by cacao trees. **However, it should be considered a pH that does not reduce the absorption of desirable minerals and micronutrients.**

On paragraph 31, we believe that the term absorption should in fact be replaced by adsorption

31. A greater amount of soil organic matter may increase soil Cd ~~absorption~~ **adsorption** and thus may help to decrease Cd in cocoa beans, based on field studies. The use of organic fertilizers such as treated manure from stabled livestock, or compost, increases the organic matter content of the soil and improves its microbiological activity.

34. The application of soil amendments (magnesium, sulfate, dolomitic limestone, vinasse, zeolite, humus, charcoal, calcium sulfate (CaSO_4), ~~each~~ **sugarcane cake** and zinc sulfate (ZnSO_4)), which vary depending on the characteristics of the soils, can help decrease Cd concentrations in cocoa beans.

Brazil believes that economic issues should not be present on the COP to reduce cadmium in cocoa beans. In this sense, we believe that paragraphs 36 and 37 should be changed as shown below.

36. Lime and sugarcane cake can reduce the bioavailability of Cd in the soil profile. Zeolite is another option in soils with high sand content and in clay-textured soils. Apatite (or rock phosphate) which can contain Cd, should be avoided where possible. ~~Also, apatite is expensive and may not be cost effective for farmers who grow cacao.~~

37. Biochar has been shown to reduce the bioavailability of Cd in cocoa beans. The reduction rates are comparable to liming and have an additive influence on liming. ~~However, biochar is an expensive soil amendment and may not be cost effective for farmers who grow cacao.~~