

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 17

CX/PR 22/53/19

May 2022

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON PESTICIDE RESIDUES

53rd Session

(Virtual)

4-8 July and 13 July 2022

DISCUSSION PAPER ON

A MODIFICATION OF THE

PORTION OF COMMODITIES TO WHICH CODEX MAXIMUM RESIDUE LIMITS APPLY AND WHICH IS ANALYZED

GROUP 14 (ASSORTED FRUITS – INEDIBLE PEEL)

(CXG 41-1993)

(Prepared by Ecuador)

GENERAL INFORMATION

1. The Codex Committee on Pesticide Residues (CCPR) has the mandate¹ to:
 - a) establish maximum limits (MRLs) for pesticide residues in specific food items or in groups of food;
 - b) establish MRLs for pesticide residues in certain animal feeding stuffs moving in international trade where this is justified for reasons of protection of human health;
 - c) prepare priority lists of pesticides for evaluation by the Joint FAO/WHO Meeting on Pesticide Residues (JMPR);
 - d) consider methods of sampling and analysis for the determination of pesticide residues in food and feed;
 - e) consider other matters in relation to the safety of food and feed containing pesticide residues; and
 - f) establish MRLs for environmental and industrial contaminants (EMRLs) showing chemical or other similarity to pesticides, in specific food items or groups of food.
2. CCPR has developed the following standards and related texts:
 - a) Classification of Food and Feed (CXA 4-1989),
 - b) Recommended Methods of Sampling for the Determination of Pesticide Residues for Compliance with MRLs (CXG 33-1999),
 - c) Guidelines on Good Laboratory Practice in Pesticide Residue Analysis (CXG 40-1993),
 - d) **Portion of Commodities to Which Codex MRLs Apply and Which is Analyzed (CXG 41-1993)**,
 - e) Guidelines on the Use of Mass Spectrometry for Identification, Confirmation and Quantitative Determination of Residues (CXG 56-2005),
 - f) Guidelines on Estimation of Uncertainty of Results (CXG 59-2006),
 - g) Principles and Guidance on the Selection of Representative Commodities for the Extrapolation of MRLs for Pesticides to Commodity Groups (CXG 84-2012),
 - h) Guidelines on Performance Criteria for Methods of Analysis for the Determination of Pesticide Residues in Food and Feed (CXG 90-2017).²

¹ Procedural Manual of the Codex Alimentarius Commission, 27th Edition, available on the Codex website:

<https://www.fao.org/fao-who-codexalimentarius/publications/en/>

² <http://www.fao.org/fao-who-codexalimentarius/committees/committee-detail/related-standards/es/?committee=CCPR>

3. The Guidelines on **Portion of commodities to which Codex MRLs apply and which is analyzed** had been last updated at CCPR42 (2010). The Committee considered whether the Guidelines should be kept as a stand-alone document or should be integrated in other more relevant documents that also contain information on the edible portion of the commodity to which the pesticide residue applies. The Committee agreed that, for the time being, the Guidelines should be retained as a single document and that this question be revisited upon completion of the revision of the Classification of Food and Feed.³
4. According to the Guidelines, Codex MRLs (CXLs) are in most cases stated as in terms of a specific whole raw agricultural commodity as it moves in international trade. In some instances, a qualification is included that describes the part of the raw agricultural commodity to which the MRL applies, for example, almonds on a shell-free basis and beans without pods.
5. In other instances, such qualifications are not provided. Therefore, unless otherwise specified, the portion of the raw agricultural commodity to which the MRL applies, and which is to be prepared as the analytical sample for the determination of pesticide residues is as described for the 33 groups listed in the Guidelines.
6. From these 33 groups, Group 14 is the Assorted Fruits – Inedible Peel: avocados, bananas, guavas, kiwi fruit, mangoes, papayas, passion fruit, and pineapples. The portion of commodity to which the Codex MRL applies (and which is analyzed) is:
 - **Whole commodity unless qualified.**
 - Pineapples: after removal of crown.
 - Avocado and mangoes: whole commodity after removal of stone but calculated on whole fruit.
 - Bananas: after removal of crown tissues and stalks
7. However, the habits of consumption of Group 14 (avocados, passion fruit, bananas, pineapple, kiwi fruit, mangoes, papayas, guavas) should be taken into account when trying to carry out the analysis of pesticide residues in each region that consume them, since the skin is removed; however, it is relevant that it is mentioned in the guideline that the part to which the MRL applies is the whole product without the peel.
8. To demonstrate the relevance of the production and international trade of Group 14 products, statistics of production, export and import areas have been analyzed using sources such as FAOSTAT and various trade statistics portals. Statistics related to trade and that are detailed may not be updated until recent years as the member states may not have yet sent this information.

ASSORTED FRUITS –INDELIBLE PEEL WORLWIDE PRODUCTION ANALYSIS

9. Group 14, which are listed as assorted fruits with inedible peel, are mostly produced in tropical or sub-tropical regions. Analyzing the production areas of banana, avocado, kiwi fruit, mangoes, guavas, papayas and pineapples, the regions⁴ of Asia, Africa, Latin America, and the Caribbean share most of the production area. Table 1 shows the production areas (as of 2019) including all the countries belonging to the Codex Regions.

Table 1.-Fruits (Group 14) worldwide production areas (2019).

	Banana	Kiwi	Avocado	Mangoes, mangosteens, guavas	Papaya	Pineapples
Latin America and the Caribbean	1.212.775	7.595	463.542	532.525	96.721	249.937
North America and South-West Pacific	103.929	16.881	42.834	14.362	1.368	11.956
Africa	1.801.469		124.369	868.411	151.352	436.930
Near East	96.065	12.780	1.485	200.007	1.871	338
Asia	1.910.983	184.655	66.755	3.969.387	210.525	425.621
TOTAL	5.125.221	221.911	698.985	5.584.692	461.837	1.124.782

³ ALINORM 10/33/24, para. 190 available at:

<https://www.fao.org/fao-who-codexalimentarius/committees/committee/related-meetings/en/?committee=CCPR>

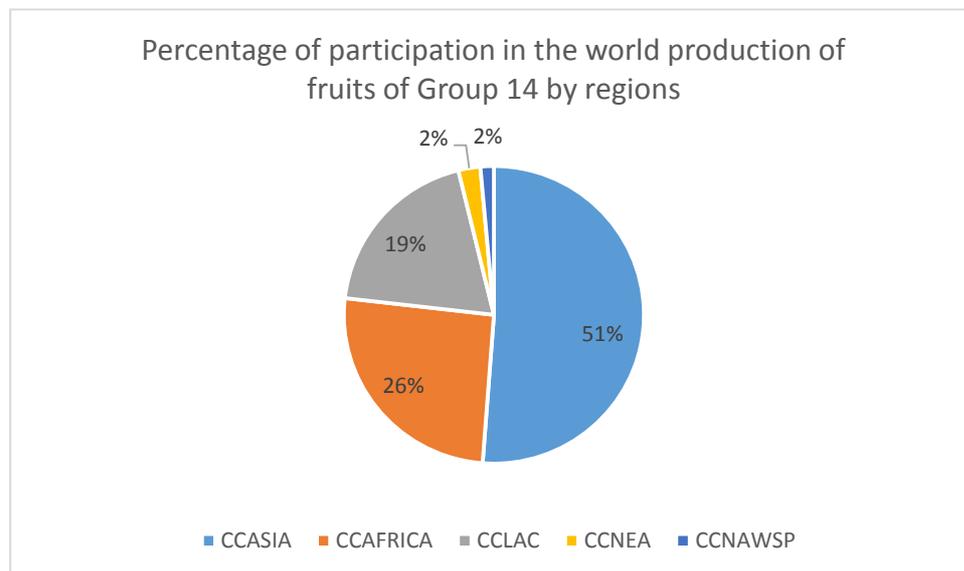
⁴ Countries belonging to these regions are those corresponding to the Codex regional coordinating committees for the said regions i.e., CCLAC, CCNASWP, CCAFRICA, CCNE, CCASIA

Source: FAOSTAT, 2021.

Elaborated: The Phyto and Zoo-sanitary Regulation and Control Agency – Agroquality 2021.

10. Asia and Africa are the largest production area for inedible peel fruits. For bananas, Asia and Africa have the largest cultivated area followed by Latin America and the Caribbean. Asia and Africa also lead the production of pineapple, papaya, and mango. Latin America and the Caribbean is the region that produces avocados the most.

Figure 1.-Percentage of participation in the world production of fruits of Group 14 by regions.



Source: FAOSTAT, 2021.

Elaborated: The Phyto and Zoo-sanitary Regulation and Control Agency – Agroquality 2021.

VARIED FRUITS OF INEDIBLE SKIN: INTERNATIONAL TRADE ANALYSIS EXPORTS

11. In international fruit trade, the products belonging to Group 14 (assorted fruits - inedible peel) represent a significant volume as shown in table 2. Considering the volume exported in 2016, the total exported of this group (avocados, granadillas, bananas, pineapple, kiwi fruit, mangoes, papayas, and guavas) represent 72% of the total volume.

Table 2.-Group 14 products international trade by product code –metric tonnes- (2016).

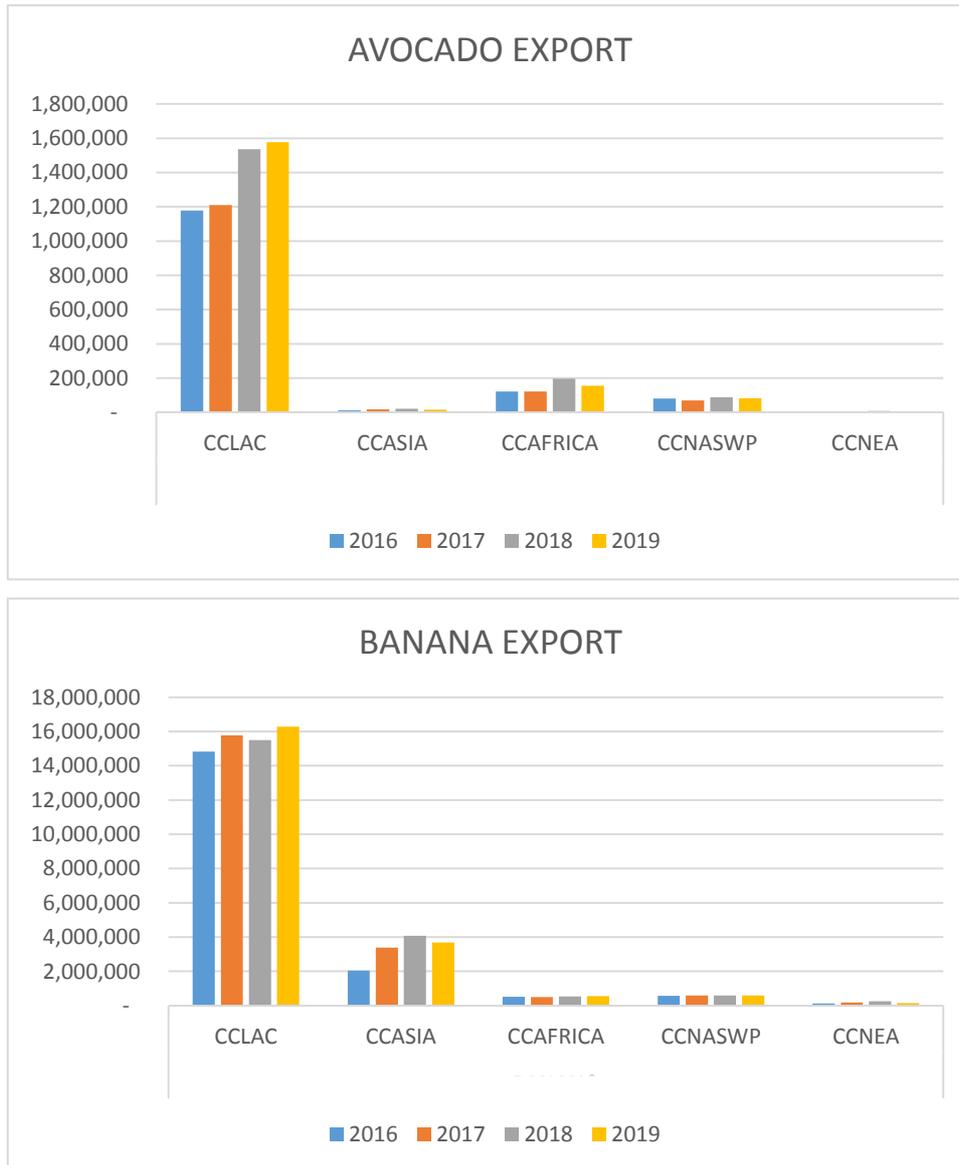
Product code	Product label	2016
		Quantity
080300	Bananas, incl. plantains, fresh or dried	116.858.562.00
080390	Fresh or dried bananas (excluding plantains)	19.194.052.00
080430	Fresh or dried pineapples	3.606.103.00
081090	Fresh tamarinds, cashew apples, jackfruit, lychees, sapodillo plums, passion fruit, carambola, ...	2.236.761.00
080450	Fresh or dried guavas, mangoes, and mangosteens	1.954.338.00
080440	Fresh or dried avocados	1.886.415.00
081050	Fresh kiwifruit	1.728.462.00
080310	Fresh or dried plantains	1.143.444.00
Others	Others	58.859.774.00
	WORLDWIDE TOTAL	207.467.911.00

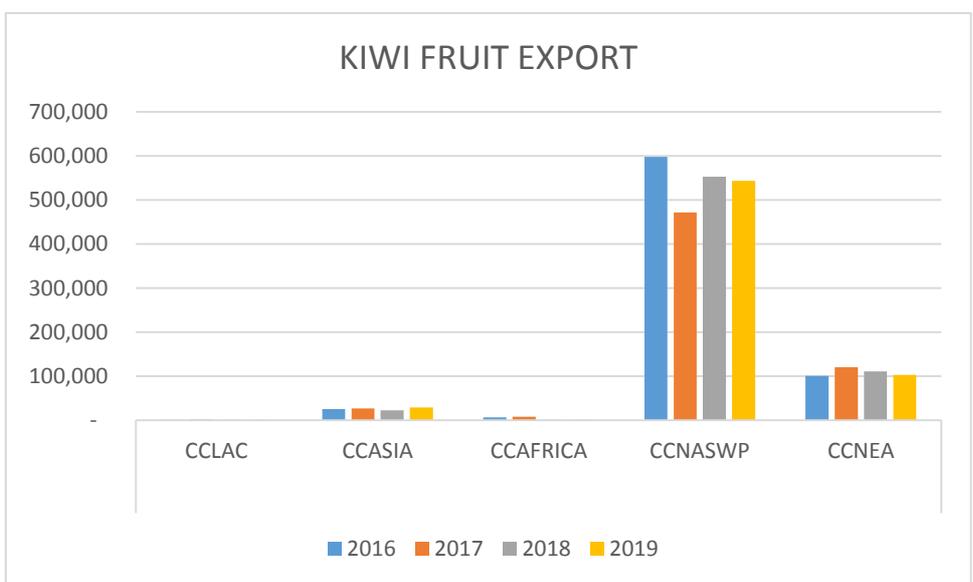
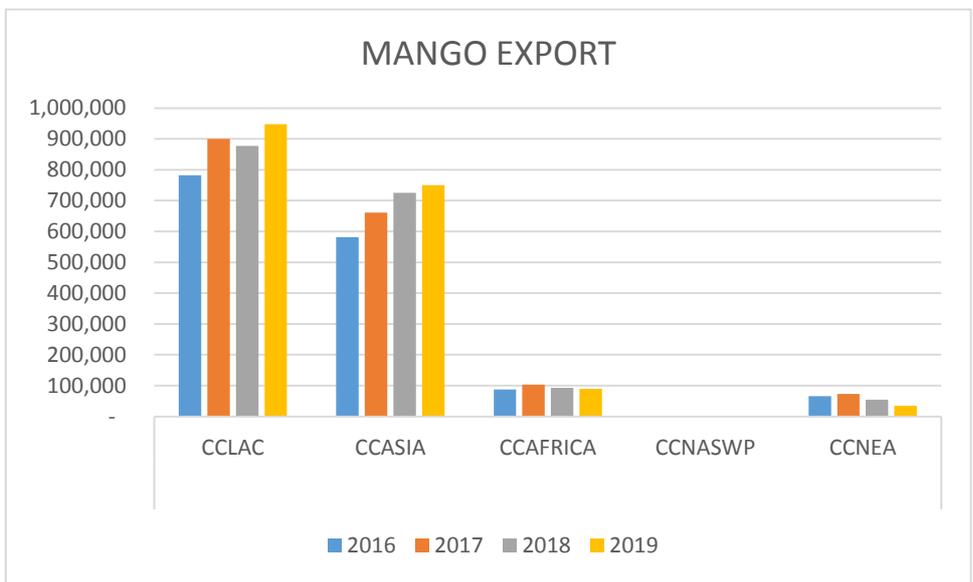
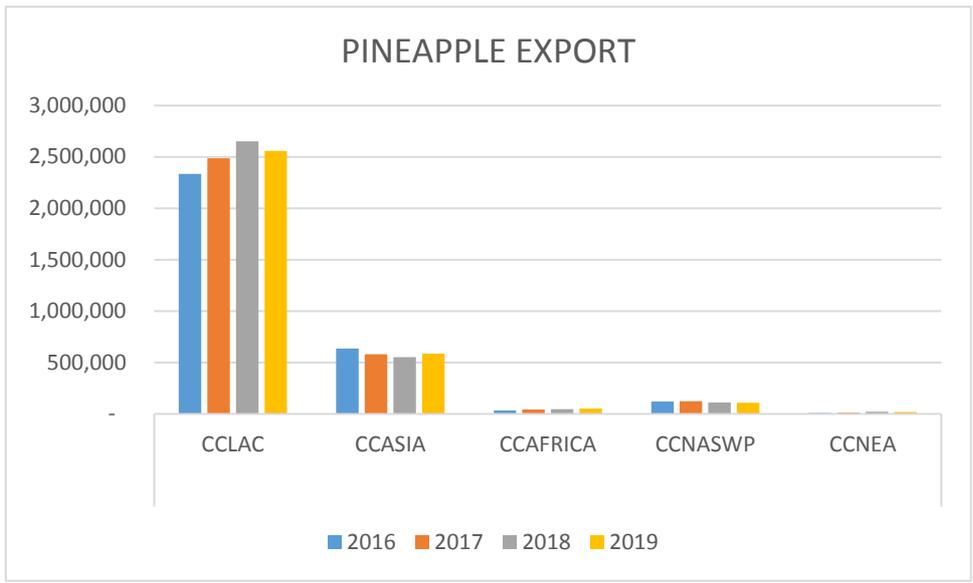
Source: International Trade Center, 2021.

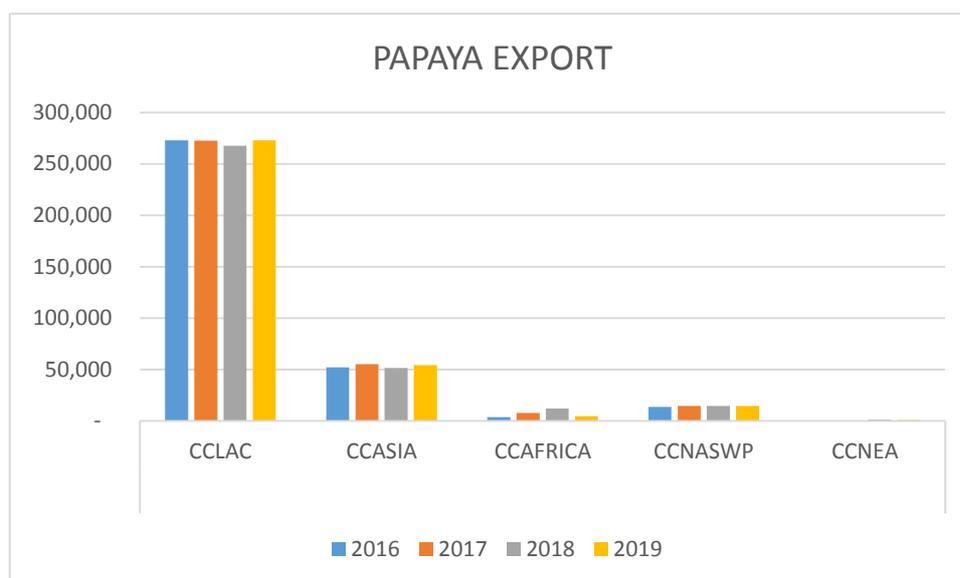
Elaborated: The Phyto and Zoo-sanitary Regulation and Control Agency – Agroquality, 2021.

12. The Guidelines on the **Portion of Commodities to which Codex MRLs apply and which is analyzed**, describes Group 14 as assorted fruits - inedible peel that are derived from the immature or mature fruits of different kinds of plants, usually shrubs or trees from tropical or subtropical regions, by this reason their production areas are distributed in several Codex regions.
13. The trade of products under Group 14, the largest volumes stand out (in descending order) for the banana, pineapple, avocado, kiwi fruit and mango items. The region of Latin America and the Caribbean brings together some of the largest volumes, with a significant production contribution from Asia (mango, banana, pineapple, papaya). The region of North America and South-West Pacific leads the world kiwi fruit production (Figure 2).

Figure 2.-Export of various inedible peel fruits (avocado, banana, pineapple, mango, kiwi fruit, papaya) by region, years 2016-2019, expressed in metric tons.







Source: FAOSTAT, 2021.

Elaborated: The Phyto and Zoo-sanitary Regulation and Control Agency – Agroquality 2021.

PROPOSAL OF MODIFICATION TO THE “PORTION OF COMMODITIES TO WHICH MAXIMUM RESIDUE LIMITS APPLY AND WHICH IS ANALYZED FOR GROUP 14 IN CXG 41-1993

14. Most of the production of the commodities under Group 14 occurs in relatively less developed countries, with a strong export vocation. For this reason, as there is no specific selection for the products of this group, in which corresponds to the part of the gross agricultural product to which the MRL applies and which must be prepared as an Analytical Sample for the determination of pesticide residues, may have a negative impact on these economies, without this implying that consumer health is neglected.
15. For that reason, it is necessary to consider the modification of the **Portion of commodities to which maximum residue limits apply and which is analyzed (CXG 41-1993)**, so that for the group of assorted fruits of inedible peel, it is specified that the part to be analyzed for pesticide residues does not include the skin or peel.
16. The current CXLs related to “Group 14 Assorted fruits - Inedible Peel” (avocados, passion fruit, bananas, pineapple, kiwi fruit, mangoes, papayas, guavas) have been established based on the edible part.
17. By not considering the analysis of the products without the peel, the MRLs established for them could be exceeded, reaching the conclusion that the food is not suitable for consumption, and thus would lead to obstacles and / or unfair practices in the international trade.

RECOMENDATIONS

18. CCPR is invited to consider whether:
 - i. Examine the relevance of starting work for the modification of the Guideline Portion of commodities to which Codex MRLs apply and which is analyzed (CXG 41-1993) specifically Group 14 assorted fruits with inedible skin, for modifying "Whole commodity unless qualified" by "Product with peel removed" and the establishment of an electronic working group (EWG) for this matter.
 - ii. Require to the JMPR a request for pesticide residue analysis data performed on the whole product and the product without skin for Group 14 fruits.
 - iii. Any other views in relation to the information and conclusions provided in this paper.