

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 4.2

CX/FO 24/28/5 Add.1
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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FATS AND OILS

Twenty-Eighth Session

Kuala Lumpur, Malaysia

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PROPOSED DRAFT AMENDMENT/REVISION TO THE *STANDARD FOR NAMED VEGETABLE OILS* (CXS 210-1999): INCLUSION OF CAMELIA SEED OIL

Comments in reply to CL 2023/58/OCS-FO

Comments of Brazil, Canada, Chile, China, Ecuador, Egypt, Iraq, Saudi Arabia, Thailand, USA

Background

1. This document compiles comments received through the Codex Online Commenting System (OCS) in response to CL 2023/58/OCS-FO issued in November 2023. Under the OCS, comments are compiled in the following order: general comments are listed first, followed by comments on specific sections.

Explanatory notes on the Annex

2. The comments submitted through the OCS are hereby attached as Annex I and are presented in table format.

General comments

COMMENT	MEMBER OBSERVER /
Brazil appreciates the work developed by China and informs that there are no additional comments to the standard for Camelia seed oil proposed on CL 2023/58 -FO.	Brazil
Canada thanks the EWG chaired by the delegation of China for working on the draft revision to the Standard for Named Vegetable Oil (CXS 210-1999) to include Camellia Seed Oil. Canada supports the inclusion of camellia seed oil in the standard. Canada has one comment below for consideration.	Canada
Chile has no comments.	Chile
China appreciates the opportunity to provide comments on the proposed draft revision to the standard for Named Vegetable Oils (CXS 210-1999):- Inclusion of Camellia oil.	China
Ecuador appreciates the work done to prepare the document "DRAFT AMENDMENT/REVISION TO THE STANDARD FOR NAMED VEGETABLE OILS (CXS 210-1999): INCLUSION OF CAMELLIA SEED OIL". Ecuador has no comments on the product definition, essential composition and quality factors, chemical and physical characteristics, identity characteristics (levels of desmethylsterols in crude camellia seed oil from authentic samples as a percentage of total sterols, levels of tocopherols and tocotrienols in crude camellia seed oil from authentic samples), or methods of analysis and sampling, since no product named "camellia seed oil" is registered with our country's food regulatory authority, and no national reference standard exists. However, we encourage the continuation of this work and look forward to any future requests, which we will reply to with more information, if available.	Ecuador
Egypt thanks The EWG chair for the good work and agrees with the request of the CCFO28, to consider advancing as currently drafted, the draft provision camellia seed oil for inclusion in the Codex Standard for Named Vegetable Oils (CXS 210-1999) as presented in the Annex to this document	Egypt
Agree.	Iraq
Saudi Arabia support the proposed draft	Saudi Arabia
The United States supports the work to amend/revise the Standard for Named Vegetable Oils (CXS 210-1999) to include camellia seed oil, due to its unique functional attributes. The United States has the following comments on the provisions in the draft standard regarding Tables 3 and 4 which are noted below.	USA

Specific comments

2. DESCRIPTION	
2.1 PRODUCT DEFINITION	
<p>Canada notes that the product definition only includes four Camellia species. However, there are other Camellia species reported in literature that may be cultivated for oil purposes.</p> <p>For example, while it is acknowledged that Camellia oleifera is the predominant species, a number of species with high oil content in the Camellia genus are reported in literature, including C. meiocarpa, C.vietnamensis, C. yuhsienensis, C. reticulata, C. chekiangoleosa, C. semiserrata, C. gigantocarpa and C. octopetala. (Ye et al. (2023) Genomic and genetic advances of oiltea-camellia (Camellia oleifera) - Frontiers in Plant Science 14: 1-9) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10106683/</p> <p>https://www.sciencedirect.com/science/article/pii/S0924224419306995</p> <p>Ting Shi et al. (2020) Camellia oil authentication: a comparative analysis and recent analytical techniques developed for its assessment. A review. Trends in Food Science and Technology 97(2020) 88-99</p> <p>If the list is not intended to exclude the other species, perhaps this may be clarified, for example, by adding the word "including" in the definition.</p>	Canada

<p><u>2.1 Product definition</u></p> <p>Camellia seed oil (youcha oil) is derived from the seeds of cultivated Camellia species (<u>including</u> <i>C. oleifera</i>, <i>C. oleifera</i> var. <i>meiocarpa</i>, <i>C. chekiangoleosa</i>, and <i>C. vietnamensis</i>).</p>					
<p><u>2.1 Product definition</u></p> <p>Camellia seed oil (youcha oil) is derived from the seeds of cultivated Camellia species (<i>C.oleifera</i>, <i>C.oleifera</i> var.<i>meiocarpa</i>, <i>C.chekiangoleosa</i>, and <i>C.vietnamensis</i>).</p> <p>We are of the view that <i>Camellia oleifera</i> has been covered <i>Camellia oleifera</i> var. <i>meiocarpa</i> and we note that <i>Camellia oleifera</i> var. <i>meiocarpa</i> is not listed under the World Flora Online (WFO) Plant List. Therefore, we are seeking clarification to include this variety in the section 2.1 product definition.</p>	Thailand				
<p>3. ESSENTIAL COMPOSITION AND QUALITY FACTORS</p>					
<p>TABLE 1: FATTY ACID COMPOSITION OF CAMELLIA SEED OIL AS DETERMINED BY GAS LIQUID CHROMATOGRAPHY FROM AUTHENTIC SAMPLES (EXPRESSED AS PERCENTAGE OF TOTAL FATTY ACIDS)</p>					
<p>Table 1: Fatty acid composition of camellia seed oil as determined by gas liquid chromatography from authentic samples (expressed as percentage of total fatty acids)</p> <p>Generally, the fatty acid content of vegetable oils depends on various factors such as the cultivar, geographical and climatic variations. Taking into account the characteristics of camellia seed oil produced in Thailand, the maximum value for fatty acids C17:1 and C22:0 of 0.1% Therefore, we propose to revise the fatty acid content to be inclusive of camellia seed oil as follows:</p> <table border="0" data-bbox="204 936 507 1003"> <tr> <td>C17:1</td> <td>ND – 0.1</td> </tr> <tr> <td>C22:0</td> <td>ND – 0.1</td> </tr> </table>	C17:1	ND – 0.1	C22:0	ND – 0.1	Thailand
C17:1	ND – 0.1				
C22:0	ND – 0.1				
<p>APPENDIX TO CXS 210-1999 – OTHER QUALITY AND COMPOSITION FACTORS</p>					
<p>3. CHEMICAL AND PHYSICAL CHARACTERISTICS</p>					
<p>TABLE 2: CHEMICAL AND PHYSICAL CHARACTERISTICS OF CRUDE CAMELLIA SEED OIL</p>					
<p>Table 2: Chemical and physical characteristics of crude camellia seed oil</p> <p>Saponification value</p> <p>Considering the characteristics of camellia seed oil produced in Thailand, we propose to decrease the minimum value of the saponification to be inclusive of camellia seed oil as follows:</p> <p>Saponification value 187 – 199</p>	Thailand				
<p>4. IDENTITY CHARACTERISTICS</p>					
<p>TABLE 3: LEVELS OF DESMETHYLSTEROLS IN CRUDE CAMELLIA SEED OIL FROM AUTHENTIC SAMPLES AS A PERCENTAGE OF TOTAL STEROLS</p>					
<p>Table 3: Levels of desmethylsterols in crude camellia seed oil from authentic samples as a percentage of total sterols</p> <p>The United States notes that the suggested range for Total sterols (mg/g) in crude camellia seed oil is 100 – 4000, which is an unusually broad range (3900%).</p>	USA				
<p>TABLE 4: LEVELS OF TOCOPHEROLS AND TOCOTRIENOLS IN CRUDE CAMELLIA SEED OIL FROM AUTHENTIC SAMPLES (MG/KG)</p>					
<p><u>Editorial</u></p> <p>For Table 4, The representation of "0 - 28" is inconsistent with CXS 210. China suggests that replace "0 - 28 " with" ND- 28".</p>	China				
<p>Table 4: Levels of tocopherols and tocotrienols in crude camellia seed oil from authentic samples (mg/kg)</p> <ul style="list-style-type: none"> The United States notes that the suggested ranges for Total (mg/kg) 70 – 1000 is an unusually broad range. Such a broad range may allow for undetected adulteration of Camellia seed oil with other oils or with low quality oil, especially in the case of tocopherols, where very low levels of tocopherols in crude oils, below their natural range, could be 	USA				

<p>indicative of either refining loss or of low quality, oxidized oil that had been refined to mask its low-quality.</p> <ul style="list-style-type: none"><li data-bbox="108 226 1230 412">• The United States notes that the suggested ranges for Alpha-tocopherol, 30 – 950 is an unusually broad range. Such a broad range may allow for undetected adulteration of Camellia seed oil with other oils or with low quality oil, especially in the case of tocopherols. Very low levels of tocopherols in crude oils, below their natural range, could be indicative of either refining loss or of low quality, oxidized oil that had been refined to mask its low-quality.	
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