



Food and Agriculture  
Organization of the  
United Nations



World Health  
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Agenda Item 5.3

CX/FO 19/26/7 Add.1

## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON FATS AND OILS

26<sup>th</sup> Session

Kuala Lumpur, Malaysia, 25 February - 1 March 2019

#### **PROPOSED DRAFT REVISION OF THE *STANDARD FOR NAMED VEGETABLE OILS* (CODEX STAN 210-1999): REVISION OF THE DEFINITIONS OF SUNFLOWERSEED OILS AND THE LIMITS OF OLEIC AND LINOLEIC ACIDS IN SUNFLOWERSEED OILS**

##### **Comments at Step 3 (Replies to CL 2018/78/OCS-FO)**

Comments of Brazil, Canada, Chile, Ecuador, Egypt, Ghana, Iran, Iraq, Peru, Russian Federation, Turkey, USA and  
Fediol

##### **Background**

1. This document compiles comments received, in response to CL 2018/78/OCS-FO issued in October 2018 with a deadline of 30 November 2018. Annex I contains the comments received through Codex Online Commenting System (OCS), and Annex II are the comments received by email.

##### **Explanatory notes on the appendix**

2. The comments submitted are, hereby attached as **Annex I** and are presented in table format.

**Comments on the Proposed Draft Revision of the Standard for Named Vegetable Oils (CODEX STAN 210-1999)**

**REVISION OF THE DEFINITIONS OF SUNFLOWERSEED OILS AND THE LIMITS OF OLEIC AND LINOLEIC ACIDS IN SUNFLOWERSEED OILS**

**General Comments**

| General Comment   | Member/Observer      |
|---|----------------------|
| <p>First of all, Brazil thanks the opportunity to present its comments on CL 2018/78-FO, related to CX/FO 19/26/7. Also, Brazil would like to thank Argentina and European Union for the collaborative work developed in the coordination with Brazil in this Electronic Working Group (EWG).</p> <p>During the discussions on the EWB, Brazil presented a total of 874 analytical results of fatty acid profile of sunflower oil produced from sunflower seeds, grown in the central-west region of the country.</p> <p>Brazilian data presented demonstrated that simply closing the gaps of oleic and linoleic acids between Sunflowerseed Oil (SFO) and Mid Oleic Sunflowerseed Oil (MOSFO), as initially proposed by EWG (C18:1 with 14,0 to 43,0 and C18:2 with 45,4 to 74,0), is not enough to cover variations in these fatty acids of sunflower oil produced in Brazil. The difference comparing to current standard is a result of higher temperatures in the cultivation of sunflower oil due to geographic location, what is already demonstrated on scientific literature.</p> <p>In this scenario, around 17% of the samples presented oleic acid content higher than 43, but linoleic acid content out of the range (45,4-74,0). Oils with these characteristics could be neither classified as SFO nor MOSFO. The classification of the Brazilian sunflower oil considering the ranges of Option 1 is the following:</p> <ul style="list-style-type: none"> <li>- SFO, 72%</li> <li>- MOSFO, 11%</li> <li>- UNCLASSIFIED, 17%</li> </ul> <p>It is important to mention that the oil samples represented in above was obtained from sunflower seeds (not mid-oleic acid oilbearing sunflower seeds). Therefore, some adjustment in the definition of MOSFO would be necessary to make it possible to classify as MOSFO an oil produced from sunflower seeds.</p> <p>Analytical results from other countries were presented in the EWG, showing that oleic acid levels of traditional sunflower seeds might increase due to climatic conditions.</p> <p>Taking into account the general principles of the Codex Alimentarius, each member of the Codex Alimentarius Commission is responsible for identifying any new scientific and other relevant information which may warrant revision of any existing Codex standards (Codex Alimentarius Commission Procedural Manual, 24th edition, page 22). Therefore, scientific base and data were presented to support the Option 3 and the adoption of Option 3 would be in line with Strategic Goal 1 of the Commission Strategic Plan 2014-2019, which defines that Committees are responsible for the establishment of international food standards that address current and emerging food issues, by revision of international standards as needed, in response to needs identified by Members (activity 1.2.2).</p> <p>Some participants expressed their concern about the impact of the changes in fatty acid ranges on nutritional labelling. At this point, Brazil would kindly ask Codex members to reflect that if ranges are changed, companies can choose most appropriate ranges of fatty acids for their products, but if ranges do not change, authentic sunflower oil will not be recognized as sunflower oil.</p> <p>Regarding Option 2, although there is some support for this option, it cannot be accepted, first because there is no demand for MOSFO with lower oleic acid content and second because any data from mid-oleic acid oil-bearing sunflower seeds were presented to justify the revision of the limits for oleic and linoleic acid content of MOSFO. In fact, if we consider data of MOSFO produced in Brazil, it would be necessary to expand upper limits of oleic acid and not to decrease.</p> <p>Nevertheless, in order to make all the discussion useful and and to improve current situation of sunflower oil, Brazil could accept Option 1, if a statement considering the possibility of traditional seeds cultivated in warmer temperatures to produce mid oleic oil could be included in the definition of MOSFO and if the classification of sunflower oil can be based on oleic acid content.</p> | <p><b>Brazil</b></p> |

| General Comment   | Member/Observer |                 |          |  |               |  |       |             |             |                |
|---|-----------------|-----------------|----------|--|---------------|--|-------|-------------|-------------|----------------|
| <p>2.1 Product definitions</p> <p>Brazil supports to change the definitions for “Sunflowerseed oil” and “sunflower oil - mid-oleic acid” in the Codex Stan 210-1999, according to Option 1 and Option 2 presented in the appendix I of CX/FO 19/26/7, as following:</p> <p>2. DESCRIPTION</p> <p>2.1 Product definitions</p> <p>Sunflowerseed oil (sunflower oil) is derived from sunflower seeds (seeds of <i>Helianthus annuus</i> L.). This oil will be classified according to the oleic acid content (see table 1).</p> <p>Sunflowerseed oil - high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflower seeds (seeds of <i>Helianthus annuus</i> L.).</p> <p>Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced from mid-oleic acid oil-bearing sunflower seeds (seeds of <i>Helianthus annuus</i> L.). Mid-oleic acid sunflower oil may be also derived from sunflower seeds in particular when these are grown in warm climates. This oil will be classified according to the oleic acid content (see table 1).</p> <p>Justification: In order to make all the discussion useful and to improve current situation of sunflower oil, Brazil could accept the modification in the ranges of fatty acids as proposed in option 1, , if a statement considering the possibility of traditional seeds cultivated in warmer temperatures to produce mid oleic oil could be included in the definition of MOSFO and if the classification of sunflower oil can be based on oleic acid content.</p> |                 |                 |          |  |               |  |       |             |             |                |
| <p>Canada appreciates the opportunity to provide comments on the proposed draft revision of the Standard for Named Vegetable Oils (CODEX STAN 210-1999): Revision of the definitions of Sunflowerseed oils and the limits of Oleic and Linoleic acids in Sunflowerseed oils.</p>  | <b>Canada</b>   |                 |          |  |               |  |       |             |             |                |
| <p><b>PROPOSED DRAFT REVISION OF THE STANDARD FOR NAMED VEGETABLE OILS (CODEX STAN 210-1999)</b> Chile is grateful for the recommendations put forward by the Working Group on the definitions of the sunflower oils and the limits of oleic and linoleic acids in sunflower oils, for the Proposed Draft Revision of the Standard for Named Vegetable Oils (CODEX STAN 210-1999).</p> <p>Regarding the product definition Chile supports OPTION 1.</p> <p>On the Essential Composition and Quality Factors, Chile supports OPTION 2, related to the modification of the ranges of oleic and linoleic acids in sunflower oils with a medium oleic acid content.</p>   | <b>Chile</b>    |                 |          |  |               |  |       |             |             |                |
| <p><b>GENERAL COMMENTS</b></p> <p>With reference to the Discussion Paper in which “Codex members and observers are invited to submit their comments in step 3 for the Proposed Draft Revision to the Standard for Named Vegetable Oils (CODEX STAN 210-1999): revision of the definitions of sunflower seed oils and the limits of oleic and linoleic acids in sunflowerseed oils (...)” we advise the following:</p> <p>Ecuador wishes to thank all the countries that worked and contributed to the amendments made to the Codex Standard for Named Vegetable Oils (CXS 210-1999); Ecuador supports the following normal standard classification proposed by the Electronic Working Group – GTE (option 1 in composition and quality factors), having considered that the standard values obtained in the country, corresponding to the oleic and linoleic acid limits in sunflower oils, are within the submitted proposal:</p> <table border="0" data-bbox="91 1324 1624 1452"> <thead> <tr> <th>FATTY ACID</th> <th>PRESENT FIGURES</th> <th>PROPOSED</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="2">SUNFLOWER OIL</td> </tr> <tr> <td>C18:1</td> <td>14.0 – 39.4</td> <td>14.0 – 43.0</td> </tr> </tbody> </table>  | FATTY ACID      | PRESENT FIGURES | PROPOSED |  | SUNFLOWER OIL |  | C18:1 | 14.0 – 39.4 | 14.0 – 43.0 | <b>Ecuador</b> |
| FATTY ACID  | PRESENT FIGURES | PROPOSED        |          |  |               |  |       |             |             |                |
|   | SUNFLOWER OIL   |                 |          |  |               |  |       |             |             |                |
| C18:1   | 14.0 – 39.4     | 14.0 – 43.0     |          |  |               |  |       |             |             |                |

| General Comment  | Member/Observer |
|--|-----------------|
| <p>C18:2                    48.3 – 74.0                    45.4 – 74.0</p> <p>As for the definitions, it is important to report that the Ecuadorean Standard NTE INEN 0026: Sunflower Oil Aceite, Requirements, at present does neither mention classification of the oil (standard, medium oleic and high oleic), therefore nor does it affect the change proposed to the definitions and/or categorising the product (option 1 and option 2 of the definitions).</p>   |                 |
| <p>Obtained data from different regions of Iran by the Ministry of Agriculture-Jahad are as below:</p> <p>Fatty acid -- Sunflower seed oil--    Mid-oleic acid Sunflower seed oil</p> <p>C18:1    -- 11.7-39.6 -- 42.7-73.6</p> <p>C18:2    -- 46.7-74.2 -- 16.9-42.7</p> <p>According to the data obtained for oleic and linoleic acids level for sunflower oil and mid oleic sunflower oil in Iran, there are differences with the three proposed limits.</p> <p>However, option 1 is close, but not the same, to the obtained Sunflower seed oil limit by Iran. We would like kindly to request to revise the limits to cover our data as much as possible.</p>   | Iran            |
| Agree with proposed draft  | Iraq            |
| <p>Perú thanks the Codex Secretariat for requesting comments in Step 3 related to the Proposed Draft Revision of the Standard for Named Vegetable Oils (CODEX STAN 210-1999): revision of the definitions of sunflower seed oils and the limits of oleic and linoleic acids in sunflower seed oils.</p> <p>Our country has studied and reviewed the circular letter, the actual standard, the background and the work carried out to date by the countries integrating the Working Group.</p> <p>It is pertinent that the global progress on this question should be presented by the electronic Working Group constituted for this draft revision, at the next 26th session of the Codex Committee for Fats and Oils (CCFO26) in Malaysia at the end of February 2019.</p> <p>(ii)        Specific Remarks</p> <p>In the Codex Alimentarius framework related to document CL 2018/78/OCS-FO, Perú has the following remarks specific to that document:</p> <p>Heading 2.1: Perú proposes to express its opinion not to modify the current text in the standard CODEX STAN 210-1999, in other words, we do not support neither of the options 1 and 2 put forward by the electronic Working Group, for the following reasons:</p> <p>-            About Option 1: it is a redundancy of the classification, which is already expressed in table 1 defining different ranges for oleic and linoleic acids depending on the type of sunflower oil. Therefore, to mention this classification criterium in the definition is no longer necessary.</p> <p>As a similar example, in the present standard rapeseed oil is defined in its versions with high erucic acid and with low erucic acid, yet the specific classification criteria are the value ranges, which only appear in Table 1 of the Standard CODEX STAN 210-1999.</p> <p>-            About Option 2: it is not relevant to indicate here the climatic effects on the oleic acid content, since this factor is already noted in the first paragraph of Heading 3.1 which reads that "... national geographical and/or climatic variations, may be considered, as necessary, to confirm that a sample is in compliance with the Standard".</p> <p>Heading 3.1: on this point Perú has no remarks to make, and we do not support any of the 3 options, backing this standpoint Perú is not a producer of this type of sunflower oil, it is only an importer of this product and does not have any scientific information that can support any position.</p> | Peru            |

| General Comment  | Member/Observer      |
|--|----------------------|
| <p>The United States supports Option 1 under "2.1 Product Definitions" with a couple of editorial modification sited below.</p> <p>We also support Option 1 under "3.1 GLC ranges of fatty acid composition (expressed as percentages)". Option 1 amends ranges of oleic and linoleic acids in sunflowerseed oil.</p>  | <p><b>USA</b></p>    |
| <p>In principle, FEDIOL does not support the revision of the current limits of oleic and linoleic fatty acid values in the Standard since, as already reiterated, data collected in 2016 among FEDIOL members for levels of C18:1-C18:2 in standard SFO, mid-oleic SFO and high oleic SFO were consistently within the ranges of the current Standard.</p> <p>Having said that, in relation to the final report of the eWG, FEDIOL supports the adotion of:</p> <p>2.1 Product definitions) Option 1 - we consider that sunflower oil identity and authenticity can only be guaranteed if specific oilseeds produce specific oils.</p> <p>3.1 GLC ranges of fatty acid composition) Option 2 - the therein proposed change would have a lesser impact on the European market as mid-oleic sunflowerseed oil is not actively traded or delivered as final product to consumers in the EU.</p> | <p><b>Fediol</b></p> |

## SPECIFIC COMMENTS

| Speific Comment  | Member/Observer           |
|--|---------------------------|
| <b>2. DESCRIPTION</b>  |                           |
| <b>2.1 Product definitions - Option 1</b>  |                           |
| Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced derived from mid-oleic acid oilbearing oil bearing sunflower seeds (seeds of Helianthus annuus L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u>  | <b>Egypt</b>              |
| <p>The Russian Federation considers that the use of Option 1 “Product Definitions” more accurately links the type of produced sunflower oil to the variety of sunflower seeds.</p> <p>However, we consider the indication that mid-oleic and high oleic varieties of seeds are obtained from sunflower seeds is inaccurate («Sunflowerseed oil –high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflowerseeds»). These varieties are the varieties of sunflower seeds. Besides, each type of sunflower oil is characterized by the entire fatty acid composition, but not oleic acid only. Therefore, we propose making certain editorial amendment</p> <p>Sunflowerseed oil (sunflower oil) is derived from sunflower seeds (seeds of Helianthus annuus L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u></p> <p>Sunflowerseed oil - high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds acid of varieties derived from varieties sunflower seeds (seeds of Helianthus annuus L.).</p> <p>we consider the indication that high oleic varieties of seeds are obtained from sunflower seeds is inaccurate («Sunflowerseed oil –high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflowerseeds»). These varieties are the varieties of sunflower seeds. Besides, each type of sunflower oil is characterized by the entire fatty acidcomposition, but not oleic acid only</p> <p>Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced derived from mid-oleic acid oilbearing acid sunflower seeds (seeds of Helianthus annuus L.)-. <u>Types of sunflowerseed oil (sunflower oil) classified according to the composition of fatty acids (see table 1). This oil will be classified according to the oleic acid content (see table 1).</u></p> <p>Rationale: We consider the indication that mid-oleic and high oleic varieties of seeds are obtained from sunflower seeds is inaccurate («Sunflowerseed oil –high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflowerseeds»). These varieties are the varieties of sunflower seeds. Besides, each type of sunflower oil is characterized by the entire fatty acidcomposition, but not oleic acid only</p> | <b>Russian Federation</b> |
| <p>Sunflowerseed oil - high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflower seeds (seeds of Helianthus annuus L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u></p> <p>Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced derived from mid-oleic acid oilbearing sunflower seeds (seeds of Helianthus annuus L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u></p>  | <b>USA</b>                |
| <p>Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced derived from mid-oleic acid oilbearing sunflower seeds (seeds of Helianthus annuus L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u></p>   | <b>Fediol</b>             |
| <b>2.1 Product definitions - Option 2</b>  |                           |
| <p>Canada supports Option 2.</p> <p><u>Rationale:</u> Canada supports the revision of standards based on evidence, including robust analytical data presented in support of the proposed revisions.</p>  | <b>Canada</b>             |

| Speific Comment   | Member/Observer |
|---|-----------------|
| <p>With respect to the definition of the oils, Canada supports reflecting in the definition for mid-oleic acid sunflower oil the fact that some of these oils may be derived from sunflower seeds that are grown in hotter climates. This is supported by evidence presented by the proponents of the change.</p> <p>Canada does not see the value to add the line “This oil will be classified according to the oleic acid content (see table 1)” for sunflower oil and mid-oleic acid sunflower oil as proposed in Option 1. Modified fatty acid vegetable oils are classified based on the specific fatty acid that has been modified. In the case of sunflower oil, modifications are based on oleic acid content, i.e. high oleic sunflower oil and mid-oleic sunflower oil. Therefore, these oils will always be classified based on the content of oleic acid.</p>   |                 |
| <p>Egypt agrees with this option with the following addation</p> <p>Sunflowerseed oil (sunflower oil) is derived from sunflower seeds (seeds of <i>Helianthus annuus</i> L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u></p> <p>Sunflowerseed oil - high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflower seeds (seeds of <i>Helianthus annuus</i> L.). <u>This oil will be classified according to the oleic acid content (see table 1).</u></p> <p>Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced from mid-oleic acid oil-bearing sunflower seeds (seeds of <i>Helianthus annuus</i> L.). <u>Mid-oleic acid sunflower oil may be also derived from traditional sunflower seeds in particular when these are grown in warm climates. This oil will be classified according to the oleic acid content (see table 1).</u></p> | <b>Egypt</b>    |
| <p>Sunflowerseed oil - high oleic acid (high oleic acid sunflower oil) is produced from high oleic acid oil-bearing seeds of varieties derived from sunflower seeds (seeds of <i>Helianthus annuus</i> L.).</p> <p><u>Rationale:</u> Traditionally sunflower oils have been described in three categories: High oleic acid, mid oleic acid and high linoleic acid, all of which are obtained from the respective sunflower seeds. High linoleic acid is left out of this standard</p>   | <b>Ghana</b>    |
| <p>Turkey supports option 2 but deleted last paragraphs as below.</p> <p>Sunflowerseed oil - mid oleic acid (mid-oleic acid sunflower oil) is produced from mid-oleic acid oil-bearing sunflower seeds (seeds of <i>Helianthus annuus</i> L.). <del>Mid-oleic acid sunflower oil may be also derived from traditional sunflower seeds in particular when these are grown in warm climates.</del></p>  | <b>Turkey</b>   |
| <b>3. ESSENTIAL COMPOSITION AND QUALITY FACTORS</b>   |                 |
| <u>Option 1</u> – amending ranges of oleic and linoleic acids in sunflowerseed oil  |                 |
| <p>Concerning the ranges of oleic acid (C18:1) and linoleic acid (C18:2), in order to reach consensus, Brazil supports the Option 1 described in the appendix I of CX/FO 19/26/7.</p>   | <b>Brazil</b>   |
| <p>Canada supports Option 1</p> <p>Rationale:</p> <p>With respect to the options for revising the ranges for oleic and linoleic acids, Canada notes that the analytical data presented relate only to sunflower oils that have been grown in hotter climates. No analytical data for mid-oleic sunflower oil has been presented to support changing the range of fatty acid for this specific oil. Hence, Canada does not support Options 2 and 3 presented.</p> <p>Canada notes that in general, the essential characteristics of a modified fatty acid vegetable oil are dependent mostly on the seeds which have been specifically developed for this purpose. The seeds are tested over the entire geographic area where they are grown over a period of time, to ensure that the oil characteristics are stable over the whole growing area. If the fatty acid composition has been modified to fit</p>  | <b>Canada</b>   |

| Speific Comment   | Member/Observer                           |   |  |                  |  |                   |                                |
|---|---|---|--|------------------|--|-------------------|--------------------------------|
| <p>some processing purpose, these modifications have to be stable over the environment where the seeds are grown, so the modifications must fit the purpose for which the oilseed has been developed.</p> <p>In view of the above, Canada would have concerns on any revision to the essential characteristics of mid-oleic sunflower oil that may result in a standard that may not be representative of the characteristics of the seed types that were developed specifically for this purpose. Adjusting the limits of the oleic and linoleic acid content of mid-oleic acid sunflower oil based on characteristics observed for the off-limit sunflower oils grown in hotter climates appears to be inconsistent with ensuring that limits set for a type of oil are based on observed data for the named oil, in this case, mid-oleic acid sunflower oil. Canada does not have a concern to adjust the limits of the fatty acids for traditional sunflower oil based on the data presented, in order to close the gap between the traditional sunflower oil and mid-oleic sunflower oil.</p>  |   |   |  |                  |  |                   |                                |
| Units of measure are missing from the ranges.   | <b>Ghana</b>                              |   |  |                  |  |                   |                                |
| <b>Option 2 – amending ranges of oleic and linoleic acids in mid-oleic sunflowerseed oil</b>  |   |   |  |                  |  |                   |                                |
| <p>n section 3, p. 3.1. we stand by option 2 (*) with editorial corrections.</p> <p>We consider it is possible to reduce the gaps in fatty acid compositions describing various types of oils from sunflower seeds.</p> <p>Reducing these gaps to 0.1% can lead to inaccurate identification of oil type. Paragraph 3.1. states that this characteristic is determined by GLC (GLC of methyl esters of fatty acids). In order to avoid identification errors, and possible future arbitration proceedings, a minimum reasonable gap between the fatty acid compositions of various types of oils from sunflower seeds is necessary. The current gap between the types of oil derived from sunflower seeds exactly corresponds to our experience in conducting a study of fatty acid composition.</p> <p>According to the interstate standard on the method of determination GOST 31663-2012 “Vegetable oils and animal fats. Determination of the mass fraction of fatty acid methyl esters by gas chromatography”(valid in Armenia, Belarus, Kyrgyzstan, Russia, Tajikistan, Uzbekistan) discrepancy between the results of two independent single determinations made by using the same method, with an identical test material, in one laboratory, by one analyst, on the same equipment, for a short period of time should not exceed at a confidence level of 0.95:</p> <ul style="list-style-type: none"> <li>- 0.2% (abs.) - when the content of the determined components is less than 5%;</li> <li>- 3% (rel.) of the obtained value, but not more than 1% (abs.) - when the content of the determined components is equal to or more than 5%.</li> </ul> <p>Similar data are given in ISO 12966-4: 2015 Animal and vegetable fats and oils -- Gas chromatography of fatty acid methyl esters -- Part 4: Determination by capillary gas chromatography.</p> <p>Thus, the current gaps for fatty acid C 18: 1 in 3.7% and C18: 2 in 3% can be adjusted to 2% for both cases (2.1% - taking into account the rounding rule, when calculations are made to the second digit after the comma, then rounded to the first character).</p> <p>We recognize that in this case there is a risk of controversial situations during identifying under the reference studies (when studies are conducted by different people on different equipment). In this case, the error is up to 3% (absolute).</p> <p>In order to avoid controversial situations in arbitration studies, the ideal solution would be to preserve the existing ranges (with a small possible adjustment of the C18: 1 range for sunflower seed oil, namely 42.4 - 71.8). The established gap between the type of oil from sunflower seeds is “virtual” given the error of the method of determination. In any case, a specific sample of sunflower oil, taking into account the determination error, will correspond either to Sunflowerseed oil or to Mid-oleic acid Sunflowerseed oil.</p> <p>Therefore, our editorial amendments are:</p> <table data-bbox="123 1364 761 1484"> <tr> <td>Fatty acid</td> <td>Proposal Mid-oleic acid Sunflowerseed oil</td> </tr> <tr> <td></td> <td>C18:1 41,5– 71.8</td> </tr> <tr> <td></td> <td>C18:2 17.7 – 46.2</td> </tr> </table> | Fatty acid                                | Proposal Mid-oleic acid Sunflowerseed oil |  | C18:1 41,5– 71.8 |  | C18:2 17.7 – 46.2 | <b>Russian Federation</b><br>I |
| Fatty acid  | Proposal Mid-oleic acid Sunflowerseed oil |   |  |                  |  |                   |                                |
|   | C18:1 41,5– 71.8                          |   |  |                  |  |                   |                                |
|   | C18:2 17.7 – 46.2                         |   |  |                  |  |                   |                                |

| <b>Speific Comment</b>  | <b>Member/Observer</b> |
|---|------------------------|
| <u>Option 3</u> – amending ranges of oleic and linoleic acids in sunflower seed oil and in mid-oleic sunflower seed oil   |                        |
| Related indexes (refractive index, saponification value, iodine value and relative density) would be determined stoichiometrically once the new limits are defined.<br>Canada suggests that these values are established based on analytical data rather than by stoichiometric approach. | <b>Canada</b>          |
| EGYPT AGREES WITH THIS OPTION   | <b>Egypt</b>           |
| Oleic acid levels of regular sunflower seeds planted in Southern Anatolia might increase due to climatic conditions, therefore, Turkey supports the values in the option 3.   | <b>Turkey</b>          |