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Agenda Item 7

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FATS AND OILS

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DISCUSSION PAPER ON THE CRITERIA FOR THE REVISIONS OF THE NAMED VEGETABLE OILS

- COMPOSITION AND NAMING OF FATTY ACID MODIFIED VEGETABLE OILS -

This discussion paper was submitted by the electronic Working Group established by the 18th Session of the Committee to consider the criteria for composition and naming of fatty acid modified vegetable oils. The electronic Working Group, hosted by Canada, was composed of Canada, Denmark, Ecuador, El Salvador, Germany, Republic of Korea, South Africa, Switzerland, United States, Uruguay.

Governments and international organizations wishing to submit comments should do so in writing (preferably by electronic file) to the Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, FAO, Via delle Terme di Caracalla, 00100 Rome, Italy (E-mail:codex@fao.org, Fax: +39 (06) 5705 4593), with a copy to Mr Paul Nunn, Consumer Choice, Food Standards and Special Projects Division, Food Standards Agency, Aviation House, 125 Kingsway, London, WC2B 6NH, United Kingdom (Fax:+44(0)20 7276 8193, E-mail:ccfo@foodstandards.gsi.gov.uk) **no later than 20 January 2005.**

I. Background:

At the last two meetings of the Codex Committee on Fats and Oils (CCFO), in 2001 and in 2003, the Committee agreed to amendments to the Codex *Standard for Named Vegetable Oils* (Codex Stan 210) to include some vegetable oils with modified fatty acid profiles. High oleic acid safflower oil and high oleic acid sunflower oil were added to the Codex Standard for Named Vegetable Oils, Codex Stan 210-1999, at the 17th Session, in 2001.

At the 18th Session of the CCFO, it was agreed to also include mid-oleic acid sunflower oil and palm superolein to that standard. The Committee noted that there were no criteria to identify whether a particular fatty acid content of an oil could be described as “high” or “medium” or “low”. With the potential number of “new” oils that could be developed with modified fatty acid contents, the CCFO could find itself in the position of having to meet to create a new definition for each modified oil.

In order to address the composition and labelling of fatty acid modified oils in a more consistent and efficient manner, at the 18th Session of CCFO it was agreed to establish an electronic working group, to be chaired by Canada, to permit all interested members of the Committee to exchange their views on the naming of fatty acid modified vegetable oils and contribute to a discussion paper for consideration by the Committee at its next Session (ALINORM 03/17, para 62).

In the spring of 2003, the Codex Canada office invited members of the CCFO to participate in the working group. Nine countries accepted the invitation. In October, 2003, Canada contacted the participants of the working group to request ideas on how to approach the naming and composition of fatty acid modified vegetable oils. Based on the comments received, four options were developed and distributed to the working group in April, 2004 for comments. In September, 2004 the discussion paper was circulated for final comments.

The discussion paper provides options and recommendations for consistent criteria for the composition and labelling of modified oils for consideration by CCFO.

II. Options for the Composition and Naming of Fatty Acid Modified Vegetable Oils

Fatty acid modified oils are oils with either higher or lower levels of a fatty acid than the traditional range of the fatty acid for the oil of the same source, for which there is a Codex standard. Considering technological innovation, the working group developed the following four options on the composition and labelling of fatty acid modified vegetable oils.

Option 1: Absolute Criteria

Description:

With this option, absolute criteria for modifications to fatty acid profiles of oils are established. The criteria could be a minimum value or a fatty acid range and would apply to any type of oil describing a fatty acid modification in the same way the Codex guidelines on nutrient content claims set criteria to be met for a claim to apply. For example, the minimum level of oleic acid would be the same for both high oleic acid corn oil and high oleic acid soya oil. For fats and oils specifically, the criteria would be developed by CCFO.

The concept could be expanded to include all foods, be developed by the Codex Committee on Food Labelling (CCFL) and added into the “General Standard for the Labelling of Prepackaged Food” as criteria for nutrient content claims. This is consistent with other nutrient content claims where the criteria is set for the claim and the claim has the same meaning regardless of the food it is applied to, for example: a “low fat yogurt” has the same fat compositional criteria as a “low fat mayonnaise”.

Where the fatty acid profile (nutrient content) has been modified from the traditional food, there would appear on the label, either in conjunction with, or in close proximity to, the name of the food, such additional words as necessary to distinguish these oils from their traditional counterparts. This would avoid misleading or confusing consumers as to the true nature of the food, in accordance with the “General Standard for the Labelling of Prepackaged Food” (Codex General Standard for the Labelling of Prepackaged Foods, 4.1). This requirement could be met by a description of the specific fatty acid modification, such as “high oleic acid sunflower seed oil” or the change in a group of fatty acids, such as “high monounsaturated fatty acids”. The former terminology is consistent with the naming pattern for the three modified oils recently recognized by CCFO. The latter terminology is more consistent with the current Codex guidelines for nutrient declaration.

The common name is considered a fatty acid claim which triggers nutrient declaration, such as a declaration of fat, saturates and polyunsaturates (Codex Guidelines on Nutrition Labelling, 3.1), as well as monounsaturates and cholesterol. No fatty acid profile would be triggered when used as an ingredient in another food, the common name would inform consumers of the nature of the modification from the traditional oil.

Implications:

With this option the same compositional criteria for a fatty acid modification would apply, regardless of the vegetable oil source and original composition. There would be a consistent value or range for any particular fatty acid, or fatty acid group, designated as “low”, “medium” or “high”. For the consumer, there would be consistency across all oils for qualitative claims such as “low oleic acid”, “mid-oleic acid” and “high oleic acid”.

This approach would require establishing low, medium and high criteria for all the different fatty acids in oils, and rules on when the fatty acid modification must be part of the naming of the food.

It may be difficult to develop criteria that do not result in naming gaps and overlaps. For example, if “high linoleic acid” criteria was any level over 70%, “mid” was “30 to no more than 70%” and “low” was less than 30%, based on total fat, it could be possible to have an oil with a linolenic fatty acid content elevated from the natural level but not high enough for the appropriate common name modification. This approach could result in some oils having a natural fatty acid range within the range appropriate for a “modified” fatty acid designation or claim. As well, meeting absolute criteria could be easier to achieve for oils that have a higher content of a particular fatty acid than others.

If the concept was expanded to include all foods, there would be implications for CCFL.

Option 2: Comparative Claims

Description:

Option 2 bases the criteria for fatty acid modification of oils on the principles of comparative claims. The common name modifiers such as “low”, “medium”, and “high” which describe the amount of a specific fatty acid (or fatty acid group) in the oil is based on a percentage difference from the highest value of the natural range of that fatty acid in the traditional oil, as provided for in the *Codex Standard for Named Vegetable Oils* (Codex Stan 210). Using the Comparative Claims principle, *CAC/GL 23-1997, Guidelines for Use of Nutrition Claims*, Section 6, of a 25% relative difference in the level of the nutrient, the “mid” could be defined as 25% more of the particular fatty acid than the top of the range, “high” could be 50% more from the reference value (ie: 25% more than the “mid”). The “low” modifier would be used to describe an oil with the particular fatty acid that is 25% reduced from the lowest value in the range for the traditional oil.

Under this option, the traditional oil common name is modified, such as “high oleic corn oil”, and accompanied by a comparative statement, such as “X% increased (or higher) in (naming the fatty acid) than regular corn oil”. This would be supported with fatty acid profile nutrient labelling, as described in Option 1.

Implications:

This approach allows for flexibility and innovation in product development. To avoid an absence or gap of composition and naming criteria as new oils are developed, it may be appropriate to set ranges for designations of “low”, “mid”, and “high”.

While there would not be absolute and identical criteria for the composition of oils (as in Option 1), the fatty acid ranges of the traditional oil and the modified oil do not overlap. Two different oils could both be higher in oleic acid than their traditional sources and be modified with the term “high oleic” but one could contain significantly more oleic acid than the other. Comparative claim information and fatty acid profile labelling would be important to inform consumers and avoid confusion.

When such a modified oil is declared as an ingredient, the common name would not include the comparative labelling.

Option 3: Percent Content of Principal Fatty Acids

Description:

Under this option, oils would be labelled with their traditional name and the name would be accompanied by a percentage of the main groups of fatty acids in a standard configuration, in relation to total fat. This is similar to the labelling of fertilizers where principal components are identified, i.e. the Nitrogen-Phosphorus-Potassium, N-P-K. An oil is identified on its label by the source name of the oil and a declaration of the percentage of groups of fatty acids based on total fat, such as “Sunflower oil xx-xx-xx-xx-xx”. The specific grouping for the standard format would require further discussion and could not be overly onerous. It could include: saturates + trans fatty acids- monounsaturates - polyunsaturates- (omega-6 - omega-3). Some examples are as follows:

Regular sunflower oil:	Sunflower oil	10-20-66-(66-00)
Mid-oleic sunflower oil:	Sunflower oil	10-45-40-(40-00)
High oleic sunflower oil:	Sunflower oil	10-84-04-(04-00)
Butter:	Butter	63-26-04-(03-00)
Canola oil:	Canola oil	07-59-30-(20-9)

Alternatively, the percentages of specific individual fatty acids of total fat could be the basis of the standard configuration.

The idea is not to replace nutrition labelling but to create a way to differentiate the modified versions of oils from the traditional oils, to provide consumers with information on the source of the oil and the modifications.

Implications:

This option provides more information on other possible changes to the fatty acid composition, which the other two options do not. However, it is a complicated and likely unfamiliar food labelling format that does not provide the consumer with information concerning the specific fatty acid modification, nor the qualitative descriptors of “high”, “medium”, and “low”. The modification information would be lost when the oil was listed as an ingredient in another food.

Rounding rules would be required as well as consumer education. A fatty acid profile in the nutrition labelling format provides similar information to consumers, in a recognized format.

Option 4: Expand Fatty Acid Profiles for Various Oils

Description:

A fourth option is to expand the ranges of some of the major fatty acids (such as linoleic, linolenic and oleic) of standardized, traditional oils to include the new fatty acid profiles in the named vegetable oils standard. This would allow the fatty acid profile to be modified for an individual oil, with no indication of the modification from an oil=s traditional fatty acid profile.

Implications:

This option may eliminate the naming and modification of common names for fatty acid modified oils, however it could also result in significant overlap of fatty acid profiles for different oils. This approach would undermine the standards of identity, resulting in difficulties in distinguishing one oil from another. It would also limit relevant product information for consumers and manufacturers.

Summary Table of the Four Options:

Option	Description	Example
1.	Create absolute criteria for the composition and naming of oils, same criteria, regardless of the type of oil, for qualitative modifications such as “low”, “med”and “high”.	“High (naming the specific fatty acid) (X oil)” would meet the same compositional criteria for the named fatty acid as “high (naming the same fatty acid)(Y oil)”
2.	Comparative criteria, the fatty acid modification is relative to and expressed as a percent difference in the specific oil=s traditional composition.	“High (naming the fatty acid)(X oil)” would include a percentage statement indicating the amount more of the named fatty acid was in the oil - the comparison is within a type of oil, not between oils.
3.	Percent content of principal fatty acids.	This would include the common name of the source oil with a standard declaration of percent content of fatty acid groups or individual fatty acids, AX Oil, xx:yy:ww (aa:bb)
4.	Expand the fatty acid profiles for various oils.	The common name would remain the same and the traditional fatty acid ranges would be expanded. A number of oil standards would be amended. The traditional common name would be applied with no requirement to indicate the fatty acid modification as the modified composition would be incorporated into the new fatty acid range.

III. Recommendations for CCFO:

A) Composition of Fatty Acid Modified Vegetable Oils:

The working group recommends further discussion and development of the compositional criteria of either Option 1 (Absolute Criteria, comparison across all types of oil) or Option 2 (Comparative Criteria, indicating relative changes of fatty acids within a type of oil).

B) Labelling of Fatty Acid Modified Vegetable Oils:

The working group recommends the following labelling components:

- a) the common name of the oil must indicate the plant source;
- b) the name should indicate that there is a nutritional difference from the traditional oil, specifically a modification of the fatty acid profile;
- c) nutrition information should be present; and
- d) the additional labelling requirement “X% increased in (naming the fatty acid)” for Option 2