CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 9 **CX/FO 11/22/13**

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FATS AND OILS
Twenty-second Session
Penang, Malaysia, 21-25 February 2011

OTHER BUSINESS AND FUTURE WORK

PROPOSAL FOR NEW WORK TO AMEND THE CODEX STANDARD FOR NAMED VEGETABLE OILS (CSX-CODEX STAN 210- 1999), TO INCLUDE A STANDARD FOR HIGH OLEIC SOYABEAN OIL

Submitted by the United States of America

PROJECT DOCUMENT

This project document has been developed according to the Codex Alimentarius Commission Procedural Manual 19th Edition, 2010 Section II, Procedures for the Elaboration of Codex Standards and related texts, *part 2. Critical review, proposals to undertake new work or to revise a standard (page 23).*

PURPOSE AND SCOPE OF THE AMENDMENT TO THE CODEX STANDARD

The purpose of this new work is to amend the Codex Standard for Named Vegetable Oils to include high oleic soyabean oil, which due to its relatively high oleic acid content enhances functionality. The amendment would enable Codex member countries and the food industry to appropriately characterize, name, and market high oleic soyabean oil developed for improved functional benefits for consumers and the food processing industry.

Functional benefits include improving oil stability performance where high heat applications are involved (deep frying), facilitating lengthened shelf life for foods in which it is an ingredient (snack foods), and not affecting the flavor of foods cooked in it due to the oil's "transparent" flavor. Nutritional changes include an increase in monounsaturated fatty acids at the expense of saturated fatty acids, and reduction in the level of undesirable *trans* fats.

The scope of work is a comparative assessment of the changes in the named fatty acid compared with the named soyabean oil in the Codex Standard 210. Other compositional characteristics will be provided for associated tables in the Standard, with the principal change being that of the fatty acid composition referred to in the named oil (High Oleic Acid Soyabean Oil).

RELEVANCE AND TIMELINESS

The food industry is continuously developing oils and fats to meet the functional and/or nutritional needs of its end users. To facilitate international trade in food products and ingredients, Codex standards often are used as the basis for names and specifications for such products. High oleic soyabean oil entered the U.S. marketplace in limited quantities for performance testing by food companies in 2010. Such testing by food manufacturers and restaurants confirmed that high oleic soyabean oil enhances functionality attributes. High oleic soyabean oil usage is expected to experience rapid growth over the next several years. Since this oil will be utilized in expanded amounts due to its favorable characteristics, it is important for it to have consistent naming and specifications to insure fair trade domestically and internationally. Because work on the Naming of Fatty Acid Modified Vegetable Oils document in CCFO was not approved in 2009, it is now even more important to accelerate the process by which Codex standards are developed to facilitate trade and allow oils with different fatty acid composition to enter the marketplace in a timely manner. Consideration of an Amendment to the Standard to include high oleic soyabean oil would require relatively little time and would make efficient use of limited CCFO resources since the major factor affected is fatty acid composition.

It is important that Codex consider new work for a Codex standard for high oleic soyabean oil. Codex has already developed standards for oils from other enhanced oleic oilseed varieties (e.g., high oleic sunflower seed, mid oleic sunflower seed, high oleic safflower seed), thus recognizing the need for individual standards to distinguish the oils in the marketplace. High oleic vegetable oils have significantly improved oxidative stability providing favorable functionality in a variety of foods as ingredients or cooking mediums. High oleic soyabean oil contributes significant stability to foods in which it is used as well as avoids the development of undesirable components such as *trans* fats by eliminating the need for chemical hydrogenation. High oleic soyabean oil has a distinctive fatty acid profile and other characteristics that are appropriate to be reflected in a Codex standard.

MAIN ASPECTS TO BE COVERED

The proposed new work on a Codex standard for High Oleic Soyabean Oil will be developed according to existing procedures for Codex standards and will include, but not be limited to, the following:

- Scope
- Description
- Essential composition and quality factors
- Food additives
- Contaminants
- Hygiene
- Labeling
- Methods of analysis and sampling
- Other quality and compositional factors

ASSESSMENT AGAINST THE CRITERIA FOR THE ESTABLISHMENT OF WORK PRIORITIES

This proposal is consistent with the Criteria for the Establishment of Work Priorities applicable to both commodities and general subjects.

a) Volume of production and consumption in individual countries and volume and pattern of trade between countries.

Data of the U.S. Department of Agriculture (USDA) indicate:

- in 2007-2008, 8,334,091 metric tons of soyabean oil were used domestically and another 1,323,182 metric tons were exported, totaling 9,657,273 metric tons.
- in 2009-2010, 7,210,909 metric tons of soyabean oil were used domestically, and 1,525,909 metric tons were exported, totaling 8,736,364 metric tons.
- Global usage of soyabean oil has been estimated to be 35,954,545 metric tons.

Vegetable oils are increasingly traded on the basis of functionality in formulations and cooking mediums of foods. Further, vegetable oil type **mixtures** are being used to enhance functional stability without chemical hydrogenation. There also has been a shift in endpoint usage of vegetable oils and fats. Soyabean oils are used in a wide variety of processed foods. According to the United Soybean Board, approximately 79 percent of all soyabean oil is used in food manufacturing and frying, where increased oil stability and extended shelf life in processed foods are critical.

High oleic soyabean oil has entered the U.S. market; it will be in the international marketplace within the next 2 to 5 years. High oleic soyabeans and their products are segregated from conventional soyabeans in production, crushing and refining, and are marketed under identity preservation systems. Having a Codex high oleic soyabean oil standard will be essential to facilitating international trade of this oil.

Several sources of trade data exist to support the rationale for this new work. In 2010, the industry, through the Qualisoy organization, conducted a Value Chain Analysis (VCA) on new soyabean oil varieties. The VCA is a structured process involving input from representatives throughout the value chain which results in estimates of future production and utilization of soybean products. That assessment resulted in the 2012–2017 projected use of high oleic soyabean oil (see table below), clearly demonstrating that this oil is increasingly traded on the basis of its composition which provides functional stability and usefulness without the need for extensive hydrogenation (thus, avoiding or eliminating *trans* fatty acids in processed products).

Projected Use of High Oleic Soybean Oil in the United States

Crop Year	Projected Amount (metric tons)	Projected Area of Cultivation (hectares)
2012	Performance testing	
2013	56 818	104 817
2014	227 272	418 076
2015	500 000	919 772
2016	1 000 000	1 839 543
2017	1 636 360	3 010 158

b) Diversification of national legislations and apparent resultant or potential impediments to international trade

The proposed amendment to the Codex Standard for Named Vegetable Oils (CODEX-Stan 210) will facilitate global trade in high oleic soyabean oil. Without such a standard, it is expected that national legislations will differ, which will adversely affect international trade in this product. In addition, it is expected that the lack of a Codex standard might trigger proliferation of private standards for this oil and contribute to the confusion and deceptive practices in trade in oils that are unsuitable for their intended uses.

c) International or regional market potential

As indicated above, a significant international and regional market potential exists, especially as global health authorities call for the use of nutritionally preferred alternatives to edible oils that are high in saturated fatty acids, and also those that contain industrial *trans* fats.

d) Amenability of the commodity to standardization

This is a proposed amendment to the Codex Standard for Named Vegetable Oils (CODEX-Stan 210) to include high oleic acid soyabean oil. High oleic acid soyabean oil is readily amenable to inclusion in that standard; much the same as the high oleic safflower and sunflower oils that are already in the standard. High oleic soyabean oil is a well characterized material with most of its characteristics other than oleic acid and linolenic acid, identical to soyabean oil, a material that is already listed in the standard.

e) Coverage of the main consumer protection and trade issues by existing or proposed general standards

As indicated above, development of a Codex standard for high oleic soyabean oil will enhance consumer protection by discouraging deceptive practices and the development of private standards.

f) Number of commodities which would need separate standard indicating whether raw, semi-processed or processed.

Not relevant.

g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies).

None known.

RELEVANCE TO THE CODEX STRATEGIC OBJECTIVES

The proposed amendment to the Codex Standard 210 is appropriate to Goal 1, Promoting Sound Regulatory Frameworks.

As indicated in this Goal, “the CAC will provide essential guidance to its members through the continued development of international standards and guidelines relating to food safety and hygiene, nutrition, labeling, and import/export inspection and certification and quality of the food stuff.”

Specifically, as stated in bullet #1, "the CAC will develop international standards, guidelines and recommendations based on scientific principles…that can serve as a model for member of the CAC to pursue food regulatory systems that provide consumers with safe food and ensure fair practices in the food trade."

Further, under bullet #2, it is noted that "Codex standards for food quality should focus on essential characteristics of products to ensure that they are not overly prescriptive and that the standards are not more trade restrictive than necessary." The proposed amendment to Codex Standard 210 will facilitate fair trade in high oleic soyabean oil that otherwise, according to the commodity oil, would be inaccurately termed "soyabean oil."

The work would also focus on essential characteristics, taking into consideration the technical and economic implications for all Codex members and in particular for developing countries, many of which are net edible oil importers.

INFORMATION ON THE RELATION BETWEEN THE PROPOSAL AND OTHER EXISTING CODEX DOCUMENTS

Codex has developed standards for almost all edible fats and oils including:

- Standard for Edible Fats and Oils not covered by Individual Standards [CODEX STAN 19-1981 (Rev. 2-1999)]
- Standard for Named Vegetable Oils [CODEX STAN 210 (Amended 2003, 2005)], including products defined as high oleic safflower seed oil, high oleic sunflower seed oil, mid oleic sunflower seed oil.
- Standard for Named Animal Fats [CODEX STAN 211-1999]
- Standard for Olive Oils and Olive Pomace Oils [CODEX STAN 33-1981]

IDENTIFICATION OF ANY REQUIREMENT FOR AND AVAILABILITY OF EXPERT SCIENTIFIC ADVICE.

None identified.

IDENTIFICATION OF ANY NEED FOR TECHNICAL INPUT TO THE GUIDELINES FROM EXTERNAL BODIES THAT CAN BE PLANNED

None identified.

PROPOSED TIMELINE FOR COMPLETION OF THE NEW WORK, INCLUDING THE START DATE, THE PROPOSED DATE FOR ADOPTION AT STEP 5/8, AND THE PROPOSED DATE FOR ADOPTION BY THE COMMISSION

Timeline: Project document and new work agreed at CCFO (22nd Session, 02/11) approval of new work by 33rd Session of CAC (07/11); CL with amendments to cover high oleic soyabean oil 2011/2012 including all appropriate data to amend the existing Standard to include high oleic soyabean oil. Step 3 document moved to Steps 5/8 in 2013 in 23rd Session CCFO; approved as amended standard at 35th Session CAC (07/13).