



Agenda Item 7

CX/FO 13/23/7

**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FATS AND OILS**

Twenty-third Session
Langkawi, Malaysia, 25 February – 1 March 2013

**DISCUSSION PAPER ON THE AMENDMENT OF THE STANDARD FOR NAMED VEGETABLE
OILS: HIGH OLEIC SOYBEAN OIL**

**PROPOSAL FOR NEW WORK
TO AMEND THE CODEX STANDARD FOR NAMED VEGETABLE OILS
(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 20th Edition, 2011 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 28)*.

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 [*CODEX STAN 210-1999*] to include high oleic soyabean oil, which has enhanced functionality due to its relatively high oleic acid content. 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 and nutritional benefits for consumers and the food processing industry.

Functional benefits include improved oil stability performance where high heat applications are involved (deep frying), longer shelf life for foods in which it is an ingredient (snack foods), and, for foods cooked in it, a flavor unaffected by the oil due to the oil's "neutral" flavor. Nutritional benefits 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 an assessment of the changes in the named fatty acids when compared with the soyabean oil currently listed in the Codex Standard for Named Vegetable Oils [*CODEX STAN 210-1999*]. 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 to ensure fair trade practices. 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 also has lower levels of saturated fat, which many countries have identified as a food component that should be reduced in the diet. High oleic soyabean oil has a distinctive fatty acid profile and other characteristics that are significantly different than the soyabean oil currently listed in the standard and is, therefore, appropriate to be reflected as a separate commodity in the 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 that:

- In 2011-12, world production of soyabeans was estimated to be 245 million metric tons.
- In 2011-12, world production of total oilseeds was estimated to be 445.7 million metric tons.
- In 2011-12, global production of soyabean oil was estimated to be 42 million metric tons

These data are provided to indicate the large market share of soyabeans in the total global marketplace of oilseeds. New soyabean varieties whose oil contains new traits to improve health and functionality in foods are expected to gain significant market share of that currently held by traditional soyabeans. High oleic soyabean oil is currently being favorably received in the United States and its trading partners and will likely experience considerable growth within the next several years.

Mid-oleic sunflower oil began to be commercially available in 1998. By 2005, it gradually captured a majority of the sunflower oil market in North America. High oleic sunflower oil similarly became available in the mid 2000s. Codex Standards for both were adopted. Because the improved functionality of mid- and high oleic oils is now more widely recognized than it was in the 1990s and 2000s, especially for use in frying

and processed foods, it is anticipated that demand for high oleic soyabean oil will increase even more rapidly than it did for mid- and high-oleic sunflower oils.

Vegetable oils are increasingly traded on the basis of functionality in formulations and as cooking mediums of foods. Further, vegetable oil type **mixtures** are being used to enhance functional stability without using 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 fair 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 (a soyabean industry organization representing seed suppliers, farmers, processors and end users) 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 soyabean 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 hydrogenation (thus, avoiding or eliminating *trans* fatty acids in processed products).

Production and Use of High Oleic Soyabean Oil in the United States

Crop Year	Area of Cultivation (hectares)	Amount of Oil Produced (metric tons)	International Trade (Metric Tons)
2011	<10 000	5 500	None
2012 ^a	40 485	21 963	230
2013	91 093 ^a	49 417 ^a	1 000 ^a
2014	263 157 ^a	142 759 ^a	2 500 ^a
2015	536 437 ^a	291 009 ^a	10 000 ^a
2016	1 111 360 ^a	603 982 ^a	20 000 ^a
2017	1 902 834 ^a	1 032 260 ^a	31 300 ^a

Projected

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 *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 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]

- Standard for Edible Fats and Oils not covered by Individual Standards [CODEX STAN 19-1981 (Rev. 2-1999)]

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 23rd Session of CCFO (02/2013)
- Approval of new work by 35th Session of CAC (07/2013)
- CL with amendments to cover high oleic soyabean oil (2013/2014), including all appropriate data to amend the existing Standard to include high oleic soyabean oil.
- Step 3 document moved to Steps 5/8 at 24th Session of CCFO (2015)
- Approved as amended standard at 37th Session CAC (07/2015).