

## Current Research of Glycidyl Fatty Acid Esters as a Process Contaminant in Edible Oil

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### <Summary>

With advancements in analytical techniques, substances that until now had never been found in foods have been identified, sparking concerns over their safety. One of these substances is glycidol fatty acid esters (GEs) found in edible oils. In 2009, BfR of Germany conducted risk assessments and raised three issues in its evaluation: 1) standardization of analytical methods, 2) development of reduction methods, and 3) implementation of safety assessment. This report outlines the latest studies related to these issues.

A direct determination analysis method used to detect GEs in edible oil was developed, with sensitivity assessment conducted jointly by the Japan Oil Chemists' Society and the American Oil Chemists' Society and registered as an official analysis method. The method is hoped to be used for various types of analysis and adopted as a standard method.

The reduction in GEs is almost completely achieved by controlling the amount of partial glycerides in edible oil and the temperature during the refining process.

The primary endpoint of safety assessment is whether or not there are any issues related to safety during conversion from GEs to glycidol as a result of hydrolysis when GEs are administered orally. This report outlines the results of the genotoxicity tests, toxicokinetic tests and the hemoglobin adducts.

GEs have become the focus of food safety issues around the world, and the results of risk assessments are much-awaited.

## Plasma Free Amino Acid Profiling of Cancer Patients and Its Application for Early Detection

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### <Summary>

#### 1) Disease and your amino acid balance

Amino acids are also present in the blood. In healthy people, the concentrations of these amino acids in their blood are maintained at stable levels. We know, however, that different diseases disturb the balance of amino acids in the blood in different ways.

#### 2) What is AminoIndex™?

AminoIndex™ is a service that uses the latest medical technology to measure the concentration of amino acids in the blood to check a person's health and detect various diseases. It is now possible to conduct an AminoIndex™ Cancer Screening (AICS) test that can detect cancer from early stages.

#### 3) What is the AminoIndex™ Cancer Screening (AICS) test?

The AminoIndex™ Cancer Screening (AICS) measures the concentrations of amino acids in the blood and statistically analyzes the differences in the balance of amino acid concentrations between healthy people and those with cancer. As a result, we can simultaneously screen for certain types of cancer.

#### 4) Which cancer types can be screened?

Currently, the test can screen gastric cancer, lung cancer, colorectal cancer, prostate cancer (in males), breast cancer (in females) and uterine/ovarian cancer (in females).

## The 12th International Symposium on Biosafety of Genetically Modified Organisms

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### <Summary>

On September 16-20, 2012, International Symposium on Biosafety of Genetically Modified Organisms: ISBGMO was held in St. Louis, MO, USA. The theme for this symposium was “Considering biosafety in the application of biotechnology to meet the changing needs of agriculture, health, and the environment”. In this symposium, it was generally agreed that environmental risk assessment of GMO should be carried out in accordance with the agreed to framework, and decisions on acceptable levels, monitoring and re-assessment should be done on a case-by-case.

## Report of the 18th Session of the FAO/WHO Coordinating Committee for Asia

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### <Summary>

The 18th session of the FAO/WHO Coordinating Committee for ASIA (CCASIA) was held from 5 to 9 November 2012 in Tokyo, Japan. The session was attended by 83 delegates from 20 Member countries, 3 observer countries and 9 international organisations.

The summary and conclusions of the main agendas in the session are as follows:

- Proposed Draft Regional Standard for Tempe  
The Coordinating Committee agreed to forward the proposed draft regional standard to the 36<sup>th</sup> Commission for adoption at Step 5/8, with the recommendation to omit Steps 6 and 7.
- Proposed Draft Regional Standard for Non-Fermented Soybean Products  
The Coordinating Committee agreed to forward the proposed draft regional standard to the 36<sup>th</sup> Commission for adoption at Step 5.
- Proposed Draft Regional Standard for Laver Products  
The Coordinating Committee agreed to establish an eWG, led by the Republic of Korea and co-chaired by Japan to prepare a proposed draft standard for laver products for circulation for comments at Step 3 and consideration by the next session of CCASIA.
- Draft Strategic Plan for the CCASIA 2015-2020  
The Coordinating Committee agreed to establish an eWG, chaired by the CCASIA Coordinator to prepare a revised draft Strategic Plan for the CCASIA 2015-2020 for circulation for comments and finalization at the next session.
- Nomination of the Coordinator  
The Coordinating Committee unanimously agreed to recommend to the 36<sup>th</sup> Session of the Commission that Japan be reappointed for a second term as Coordinator for Asia.

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## Report of the 4th BeSeTo Meeting

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### <Summary>

ILSI Korea, ILSI Focal Point in China, and ILSI Japan held the 4th BeSeTo meeting in Seoul on the 6th and 7th of September, 2012. It was the first opportunity for this meeting to have observers from related government authorities in each country. The agenda consisted of an exchange of information and discussions on future cooperation.

As part of the exchange of information, each branch reported on topics related to food safety and risk assessment, and gave a report on nutrition labeling regulation in that region. In the discussions on cooperation, the outcome of this year's MAFF sponsored project was presented by ILSI Japan, and the participants agreed with its continuation. This year's project expanded to cover India and neighboring countries, and the outcome will be presented at a Tokyo seminar next February. The next meeting will be held in China, and it was decided to do the best to again invite observers from related government authorities in each country.

This year, ILSI Korea held a seminar named "Food Additive Standards and Harmonization in Asia Region" in collaboration with KFDA. It was held using Korean / English simultaneous interpretation and governmental representatives from each country and the ASEAN region were invited speakers. The details of this seminar were briefly reported.

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## Report of ILSI Europe Workshop on “Food Allergy: From Thresholds to Action Levels”

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### <Summary>

Due to food allergy is regarded as a global public health issue, each regulatory body has enforced food allergen labeling legislation. However, no regulatory limit of food allergen has been set on, except Japan, though the experts realized that such regulatory limit is essential for the substantial food allergen risk management. Accordingly, ILSI Europe organized the workshop focusing on food allergen thresholds to action levels, which facilitate the food allergen risk management, on September 13-14 in Reading, UK, in collaboration with US the Food Allergy Research & Resource Program (FARRP), Health Canada Food Directorate, ILSI North America, The University of Nebraska and ILSI Japan.

In the workshop, the latest results on establishing food allergen threshold as well as the opinions of food allergic individual groups were presented. The workshop intended to integrate the opinions of the stakeholders for stepping forward to set up Action level for food allergen risk management. Although the food allergic individual groups agreed to establish Reference dose, some groups insisted Zero risk. Consequently, the integration for directing to establish the practical Action level was not achieved. Under this situation, Japanese 10 years' experience managing food allergen by Regulatory limits, 10 $\mu$ g food allergen protein/g food, is extremely meaningful, and can contribute to break through the standstill of present controversy for establishing Reference dose for Action level.