Four Corners

EUGENE MARSHACK, Chairman
International Relations Committee

A. UZZAN, G. JACINI, T. ASAHARA,
S.G. BROOKER, H. NIEWIADOMSKI,
E. VIOQUE, Corresponding Secretaries

France . . . . . A. Uzzan

First French rapeseed harvest without erucic acid

Early in the summer of 1974 French agriculture produced its first harvest of rapeseed without erucic acid.

The new variety, developed by the Institut National de la Recherche Agronomique at Versailles, is characterized by an enrucic acid content under 1%, so that in this respect it is ahead of all the new varieties developed in rapeseed producing countries (Canada, Poland, Sweden).

The seed, sold under the name of PRIMOR, accounted for 70% of sowing in autumn, 1973—and consequently the 1974 harvests—the remaining 30% being conventional MAJOR rapeseed with 45% erucic acid.

In these conditions, the French oil industry will have at its disposal three types of raw rapeseed material providing three types of oil: (A) pure PRIMOR with a low erucic acid content, (B) pure MAJOR with a high erucic acid content, and (C) PRIMOR + MAJOR mixture with a variable erucic acid content.

The first of these two oils will serve chiefly as a food product and will be sold under the generic name of "rapeseed oil;" the third of the oils will be employed chiefly in industry. The second will be sold as food, either pure or mixed with other oils, under the name of "vegetable oil."

This new situation represents great progress. It will satisfy the nutrition and hygiene specialists owing to the considerable reduction in the food ration of any erucic acid.

As the years go by, this situation will further improve by the progressive replacement of all the MAJOR by PRIMOR.

New safety regulations in oil factories carrying out solvent extraction by hexane

Recently, an official circular from the French Minister of Labor has changed these regulations.

This is an important document which increases safety in the extraction plants, taking into account the progress made since the previous regulations dating from 1958. The new circular describes the construction and fitting out of the extraction plants, the running and supervision of equipment, and protection against fire and explosion.

This text has been drafted by a group of experts composed of representatives of the authorities, the unions, the oil trade organizations, and equipment manufacturers, together with the research centers concerned (Institut National de la Sécurité, Institut des Corps gras- ITERG). It has required lengthy negotiations, but, in all cases, public interest has prevailed over private interests. The regulations make a distinction between new plants and those already in existence. It is obviously more strict for the first but leaves a certain period of time for the second to adapt themselves.

This new text places the French oil industry in an avant-garde position where accident prevention and safety are concerned in solvent extraction.

Association Francaise D'Etude des Corps Gras and 1974 Chevreul Medals

The 1974 CHEVREUL medal prize winners are: Mr. DE SMET, Extraction DE SMET S.A. ANTWERP (Belgium), for his contribution to oil technology, and Mr. MORICE, of the I.N.R.A., Versailles, for his genetic works on the development of new erucic acid free rapeseed.

The medals will be presented on the occasion of the Study Day which is scheduled for Paris on December 17, 1974.

New Association Francaise d'Etude des Corps Gras Executive Committee

During a recent meeting, the Association Francaise d'Etude des Corps Gras' Administrative Committee formed its Executive Committee for 1975-76. The following were elected: C. Paquot, chairman; J. Klere, vice-chairman; M.T. Juillet, secretary-general; J. Pore, treasurer; and Mr. Bertin, auditor.

ITERG 1975 Information Days

These will be devoted to "Oleaginous Flours and Proteins in Human Nutrition" and will be held in Paris from May 12-16, 1975.

An organization committee, with Michel Engrand as chairman, is now preparing the program in conjunction with the Groupe d'Etude des Protéines de Soja, a new industrial association responsible for promoting the development and application of these proteins.

Our American colleagues are cordially invited to be present at this congress.

Italy . . . . . G. Jacini

International Society of Fats Convention

The twelfth Convention of the International Society of Fats took place in Milan September 3-7. Over 700 people signed up to attend, and 202 reports were scheduled. Together with the general lectures and the symposiums there were ca. 293 presentations.

Ministry's action on erucic acid

The Italian Ministry of Health definitively has set at 15% the maximum amount of erucic acid that may be contained in any food oil.

New association formed

A National Association for Applied Research is being founded in Italy, with headquarters in Rome, for the purpose of fostering every effort in this area. The association's founders have high expectations for this enterprise, which is being promoted by Italian private and nationalized industry.

Meeting of Centers for Lipid Research

The European Club of Centers for Lipid Research met in Milan immediately after the twelfth International Society of Fats Convention.

Norms of biodegradability

The official norms govering the biodegradability of synthetic detergents have been in effect in Italy since January 1974.

Japan . . . . . T. Asahara

Guest lecturers from U.S. and Korea at JOCS fall meeting

The thirteenth Annual Fall Meeting of JOCS was held at the campus of Osaka University in Osaka on November 1-2, 1974, and 81 papers, including two special lectures were presented. The lectures were: "The Role of Essential Fatty Acids in Human Nutrition" by R.T. Holman, AOCS president, Hormel Institute, University of Minnesota, and "The Recent Aspect of Fat and Oil Industry in Korea" by J. Kim, Engineering College of Hanyang University. After the meeting, Holman discussed the possible schedule of a second JOCS-AOCS Joint Meeting with members of the JOCS Committee.

Japan at IUPAC Annual Meeting

Oil, Fat, and Derivatives Section, Applied Chemistry Division of IUPAC (section president, Dr. Vos, Holland, general secretary, Dr. Paequot, France) held the annual meeting at Warsaw in Poland on August 27-30, 1974. About 40 representatives from all over the world, including T. Asahara from Japan, attended. Discussion took place on the results of experiments and planning on testing methods for oil, fat, and derivatives.

French scientists on study tour in Japan

A group of French scientists headed by A. Uzzan, Institute Des Corps Gras, visited Japan on November 2-15, 1974, to discuss mutual concerns of current topics on fat and oil chemistry with Japanese academic and industrial leaders. JOCS was glad to help strengthen the relationships between Japanese and French scientists and industrials.

New Zealand . . . . . S.G. Brooker

Interest in Oilseeds

The interest in oilseeds in New Zealand mentioned in our last report has received a new stimulus, partly through the substantial rise in the prices of vegetable oils on the world market and partly through some uncertainties about our staple primary produce—meat, wool, and dairy products. Preliminary trials have shown yields of up to 2500 k/hectare of rapeseed, and commercial scale plants of the "zero-zero" Tower variety are being made this spring. This seems to be the oilseed best suited to New Zealand's variable climate, but sunflower, safflower, and soybeans are still under investigation.

N.Z. Starch Products Co., Ltd., of Auckland is promoting the growing of corn in the Waikato area of the North Island to provide for a cornstarch and glucose

industry. Having come rather late into the field, local growers are able to make use of the latest techniques to obtain yields of up to 12,500 k/hectare. As a by-product of the starch industry, corn oil will be produced for the first time in New Zealand; in addition, the Starch Co. proposes later to introduce high oil yielding varieties.

As a new development, the New Zealand Institute of Chemistry at its annual conference in Auckland in August allocated a whole day to a symposium on fats in which review papers were given on the organic and physical chemistry, biochemistry, nutritional, and medical aspects of fats, as well as the commercial extraction of vegetable oils. R. Selwyn Jebson of the Dairy Research Institute, Palmerston North, described the latest work done in developing a soft butter to compare with polyunsaturated margarine in spreadability. To do this the butterfat is fractionated into three fractions; the hardest and softest portions are combined and reemulsified with skim milk. One of the difficulties of the process is the ready oxidation of the fat, and the process must, therefore, be conducted under nitrogen. Isopropanol was found to be a better solvent than acetone first used from this point of view. Laboratory runs have been promising, and a full-scale plant is being set up.

Shorland to Michigan State

F. Brian Shorland who achieved an international reputation for his work on fats while he was director of the Fats Research Laboratory, Wellington, has been appointed Visiting Professor in the Department of Food Science and Nutrition, Michigan State University, East Lansing, Mich.

Roy P. Hansen, who was associated closely with Shorland at the Fats Research Laboratory recently retired. His research work was directed particularly toward the isolation and identification of odd numbered and branched chain fatty acids in a number of animal fats. His latest research has been on the fat of earthworms which arose from the observation that specimens of New Zealand's flightless bird, the kiwi, in captivity in zoos did not thrive on earthworms which were their main diet. It was found that the fat of the worms contained significant amounts of branched chain fatty acids, such as 4, 8, 12 trimethyltridecanoic, and he was able to show that these are derived from phytol present in leaves found in the gut of the annelids.

Poland . . . . . H. Niewiadomski

International symposium in June

The Food Technology and Chemistry Committee of the Polish Academy of Science and the Institute of Organic and Food Chemistry and Technology of the Gdańsk Technical University are organizing an "International Symposium on Chemurgy of Fats" to be held June 10-13, 1975, at Gdańsk, Poland.

There will be plenary and sectional meetings at which papers will be delivered on original studies devoted to the following topics: (A) hydrogenation, (B) oxidation and ozonolysis, (C) interesterification, and (D) synthesis of fatty acid derivatives.

Henryk Niewiadomski is chairman of the Scientific Committee. W. Zwierzykowski is chairman, and J. Marcinkiewicz is scientific secretary.

Preliminary applications should be sent to the Organizing Committee before December 15, 1974. The number of participants is restricted. Additional information is available from: Executive Committee, Politechnika Gdańska, Instytut Chemii i Technologii, Organicznej oraz Zywnosciowej, 80-952 Gdańsk, Majakowskiego 11, Poland.

Spain . . . . . E. Vioque

Round Table on olive oil quality

A post-congress meeting of the Fourth International Congress of Food Science and Technology has taken place in the Instituto de la Grasa of Sevilla in September. It was organized by the Juan de la Cierva Patronage and sponsored by the International Union of Food Science and Technology.

The Sessions were presided by the director of the Institute together with Dr. Di Gregorio of the International Olive Oil Council. Experts from Argentine, Spain, France, Great Britain, Greece, Israel, Italy, Portugal, Japan, Syria, and Tunisia were present.

The subject of the first main topic was: "Chemical Characteristics as a Anality Criterion." Chairman was J. Gracian, and the moderator was Dr. Jacini, director of the Stacione Sperimentale Oli e Grassi, Milan, Italy.

The following papers were presented: "Chemical Characteristics of Israeli Olive Oils," by O. Vatarin, T. Gutfinger, M. Altar, and A. Letan; "Natural Polyphenols and Olive Oil Stability," by A. Vazquez, C. Janer, and M.L. Janer; and "The Olive Oils from Segura Sierra Región (Jaén): Their Chemical Charactistics as a Quality Criterion." Chairman was Dr. Jacini, and the moderator was Dr. Naudet, director of the Institut des Corps Gras, Marsella. The following papers were presented: "Objective and Subjective Methods in the evaluation of Organoleptic Characteristics of Olive Oil," by R. Gutierrez; "The Olive Oils from the Segura Sierra Región (Jaén): Their Sensorial (Organoleptic) Characteristics as a Quality Criterion," by J. Bautista; and "Organoleptic Quality Criteria of Olive Oil Considered as an Alimentary Component," by R. Lengaran.

Tenth plenary meeting of assembly of members of the Instituto De La Grasa in Sevilla

The meeting took place in Sevilla in May. The following main topics were studied: outlook of the cultivation of oil seeds in Spain and their yield with respect to other cultivations and the ambient and the Spanish industries of table olives, vegetable oils, and detergents. Speakers were J. Cejudo, U. Diaz, and D.J. Catalán.

Other topics presented by R. Gonzales and J. Carmona were: "Improvements on Safflower and Sunflower" and "Improvement Programs of Soybean." The work carried on by Instituto de la Grasa on "Biodegradability Test of Synthetic Detergents" was explained by C. Dobargares and Dr. Ruiz.

Two facts, although well known, were confirmed through the expositions and discussions: (A) the necessity of correct planning of the cultivation and technology of seed oils in Spain to assure the supply of fatty foods and proteins in the near future and (B) the pressing necessity of installation and support in proper and continous working condition of cleaning stations for the waste waters in the cities to eliminate detergent residues. ■