

Report of the Seville meeting, April 5-6, 1973

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During their Paris meeting January 1972, members of the European Club of Centers for Lipid Research decided to convene in Seville in 1973 to assess the progress of their cooperation and information program. Thus, upon invitation from J.M. Martinez-Moreno, director of the Seville Instituto de la Grasa, B. Jacobsberg (Belgium), J.P. Helme (France), A. Seher (Germany), G. Jacini (Italy), and H.J. Vos (Holland), met in Seville on April 5-6. The following individuals took part in the meeting as guests: E. Kurucz (Hungary), R. Marcuse (Sweden), Martin (Spain), J. Hollo (Hungary), H. Niewiadomski (Poland), Gomez-Herrera (Seville) and A. Uzzan (Paris).

During the past 16 months, the club's activities have been most evidenced by the publication of seven notes (one on the club itself, six others on each of the six member centers) in four European reviews (German, Spanish, French and Italian); five of these seven articles have been published in *JAOCS* (49:236A, 330A, 372A, 374A [1972] and 50:4A [1973]). Member centers have also shared advice, consultation, and group activities.

The Seville meeting was considered a complete success. Its results are reported in the following paragraphs.

Research activity

At the Institut de Fermentation, Meurice-Chimie-CERIA (Brussels): (1) quality of fats (palm, olive oils) and its incidence on the stability of lipid-containing food products, e.g., biscuits; (2) methods regulating the texture of fats (interesterification, optimization of mixes by linear programming, crystallization); (3) product of yeast from lipids (reduction in pollution by improved biodegradability of oil mill waste).

At the Institut des Corps gras (Paris) and the Laboratoire National des Matières grasses (Marseilles): (1) analytical studies—concentration, separation and identification of products responsible for the flavor of oils; determination of oxidized acids on chromatoplates; determination of the positional isomers of unsaturated fatty acids; comparison of different methods of studying solid fats (% of solid fat content); determination of metal traces, (atomic absorption/Massman oven); extraction and determination of the polyethylene in tallow; comparison of various methods of determining aflatoxins; (2) technological studies—hydrogenation of oils in homogeneous phase, comparison of various classes of transition metal-based catalysts; detoxification of meal containing aflatoxin by ammoniation and polar solvents (pilot and industrial tests); dehulling of rapeseed, incidence on the quality of the oil and meal; (3) study of the practical employment and nutritional properties of frying oils and cruciferous oils (rapeseed, canbra, etc.); problems related to environment (insecticides, solvents, waste water).

At the Bundesanstalt für Fettforschung (Münster): (1) study on the sterols of oils and butter fat— isolation and identification of various sterols, and control of the purity of butter fat refined by its sterols; (2) analysis of commercial emulsifiers; (3) synthesis and study of lipid-ethers, notably alkylglycerol and ethylene-glycol ethers; (4) research connected with environmental problems—polycyclic hydrocarbons in extraction solvents; solvent residues

in meal; rapid method of determining radioactive contamination in food products.

At the Stazione Sperimentale per le Industrie degli Olii e Grassi (Milan): (1) study of the minor oil compounds—separation by gas chromatography on the TMS and identification of sterols and triterpenic alcohols; (2) study of substances responsible for olive oil flavor— isolation of benzylic alcohols, triterpenic alcohols, ramified-chain aromatic hydrocarbons or substances flavoring the olive having an attractive or repulsive action on the olive fly (*Dacus*); (3) identification and transformation of the sulphur compounds of rapeseed meal involving an original detoxification process; (4) systematic determination of metal traces (Co, Ni, Fe, Cu) in commercial oils; (5) evolution in the composition of deodorized distillates (notably cyclic hydrocarbons); (6) preparation of a safe method of determining biodegradability.

At the Lipids Section of the Central Institute for Nutrition and Food Research-TNO (Zeist): (1) analytical studies—cocoa and cocoa products (determination of traces of iron, rapid determination of fat content, study of cocoa flavor in relation to roasting conditions; detection and identification of emulsifiers in food products; evaluation of characteristics of frying oils [soya, hydrogenated soya] before and after use; detection of lard in tallow and ghee-type fats) and margarine (study of structural and organoleptic properties; study of oil exudation phenomena); (2) technological studies—characterization of crude oils (soya, palm) in connection with expected stability after complete refining; elimination of chlorinated products such as hexachlorobenzene (HCB) from waste animal fat; comparison of activity and selectivity of Ni-based hydrogenation catalysts with different types of oils.

At the Instituto de la Grasa y sus Derivados (Seville): (1) study of the chemical composition of olives and olive oils in view of better measuring their stability, purity and quality; (2) packing of oils—container-contents relations; role of antioxygen; evolution of flavor; (3) preparation of green table olives (stuffing, packing) and black olives (study of the phenomenon, its control, pilot and industrial applications); (4) attractive and repulsive olive tree substances vs. the fly; (5) in the experimental stage—study of better conditions for obtaining and preserving olive oils; (6) in the pilot stage—study of the extraction by solvent of olive oilcake and oilseed refining processes.

Other fields of activity: A report was also made of activities in fields concerning standardization, both national and international (ISO, UICPA, International Chocolate-Cocoa Office, etc.) expertise or advice, regulations and scientific events organized by members.

Current problems

Another part of the meeting was devoted to a discussion of a leading theme of the day—research into the nutritional and physiological value of rapeseed oil and the practical consequences that the results of this research can have on the use of this oil. After a round table conference during which each member indicated the state of the question in his or her country, it was decided to prepare a release in which the club would express its opinion. This release specifies that “in the present state of knowledge, legal regulations expressed by a limitation or exclusion of rapeseed oil from human nutrition could not be justified by final scientific arguments. Studies are now in progress in Germany, France, Holland, Scandinavia and Poland.... So it

would appear wise to wait for the final conclusions of these studies before envisaging any eventual legal measures limiting consumption of rapeseed oil."

Guest members

Nonmembers taking part in the meeting briefly introduced the research organizations that they represent. (1) R. Marcuse summarized the activities of LIPIDFORUM, an association formed in 1969, and including those who are concerned with lipid research in the Scandinavian countries (Sweden, Norway, Finland, Denmark and Iceland). (2) Martin introduced the Instituto de Productos Lacteos y Derivados (Madrid) and explained its contributions to developing the knowledge of animal lipids, notably butter, lard and tallow. The most original works dealt with the interesterification of lard by a new, more specific and economical method, and the rheology of solid fats. (3) J. Hollo surveyed the organization of industry and research in Hungary. Research is performed primarily at the Forschungsinstitute für Pflanzenöl und Waschmittelindustrie (Budapest), whose activities cover all lipid spheres, notably assistance to industry in connection with technology (new processes) and analytical control. (4) H. Niewiadomski spoke for Poland, emphasizing the contribution by the Gdansk Institute of Food Technology. Major research topics were: the hydrogenation of rapeseed oil; the lecithins of rapeseed oil (extraction, purification, quality); the minor compounds, notably the sterols, and the incidence of refining on their composition, and the finalization of new analytical techniques for the better study of lipids.

Future of the club—structure and new activities

The final work session of the meeting was devoted to an extensive discussion of the club's future.

Broadening of the club—new members: Although broadening of the club is desirable, it was decided to limit the

number of members for reasons of efficiency. The guests present—Hollo, Marcuse, Martin and Niewiadomski—were admitted as new members. Swoboda, of the Food Research Institute, Norwich, England, who had applied for membership but was unable to take part in the Seville meeting, was also admitted as a member.

Structure: The structure of the club remains flexible and informal; there are no articles or elected chairman. However, to ensure coordination, it was decided to appoint a permanent secretary, presently A. Uzzan of ITERG.

Cooperation in research: Although highly desirable, it is difficult to program cooperative research in advance at club level. It can only be established center-to-center, as was done in 1972.

Exchange of trainees: Exchange of trainees can be organized in the near future and will be done at research work level.

Cooperation in documentation-information: Such cooperation will take place at two levels: information on translations in progress, and exchange of documentary products. It is agreed to create, for interested centers, a documentary pool with the object of exchanging prepared abstracts.

Publication: Reports of the Seville meeting will be in the members respective journals (the four previous ones, German, Spanish, French, Italian, and the three new ones, Hungarian, Polish and Scandinavian), and also in *JAACS*.

Forthcoming meeting: On an invitation from G. Jacini, the next meeting will be held at the Stazione Sperimentale at Milan, directly after the ISF Congress. Monday, September 9, 1974, was set as the tentative starting date.

For more information regarding the European Club of Centers for Lipid Research, contact A. Uzzan. ■

Abner Eisner ends career at Eastern

Abner Eisner, who has been an active AOCS member since 1954, retired as of the end of June from the USDA's Eastern Regional Research Center in the Philadelphia suburb of Wyndmoor, Pa. Eisner, a research chemist in the Center's Animal Fat Products Laboratory, has worked at the Wyndmoor installation since 1942. He graduated from the University of Pennsylvania and received his M.Sc. degree from there in 1931 and his Ph.D. in 1934. He was an assistant instructor at Penn while he was earning his postgraduate degrees. After receiving his doctorate, he worked for 7 years at the U.S. Bureau of Mines in Pittsburgh before coming to the USDA laboratory. Eisner is the author of 56 publications and 7 patents dealing primarily with fatty acids, the fundamental chemistry of nicotine and the chemistry of wool wax. He also taught chemistry part time at Drexel University's Evening College. ■

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