

Update: Training session, new committee

On March 30 and 31, 1989, a special training session was held at the newly formed Hach Training Center in Loveland, Colorado. The purpose of the training session was to provide hands-on experience in the use of nephelometry.

Twelve persons, representing various oil-processing companies, participated in the two-day course. The subject matter of the training session included the measurement of phospholipids in vegetable oils and wax in sunflowerseed oil and a demonstration of the measurement of acetone insolubles (AI) in lecithin.

The results of the phospholipid measurements were generally good. Correlation coefficients for standard curves ranged from 0.96 to 0.99. Phospholipid values obtained from soybean oil samples, provided to the participants as "unknown," were close to actual values in most cases.

A new wax measurement technique was tested for the first time. This method has been under consideration for adoption as an AOCS recommended practice. There were problems encountered in solubilizing the wax for the preparation of standards and in the filtration of the wax standards. Although correlation coefficients for standard curves ranged from 0.97 to 0.99, widely varying results were obtained from vegetable oil samples with an unknown wax content. Based on the problems encountered, this method needs to be revised and reviewed by the AOCS Uniform Methods Committee before it is included in the AOCS methods book. To be of practical use, the working range of the method needs to be validated in the 0 to 300 parts per million (ppm) range, rather than in the much higher range currently specified by the

method. The 0 to 300 ppm range will be used during the next training session to be held at the Hach Training Center on July 13-14, 1989.

General comments from participants were very positive regarding the course and its content.

AOCS member Tom Aspelund is the director of the Hach Training Center. Roger Sinram of Archer Daniels Midland Co., Decatur, Illinois, is the instructor for the nephelometric training sessions.

New technical committee

At the request of AOCS member Robert Evans, an AOCS committee has been organized to deal with the technical aspects of natural spice extractives as antioxidants. The purpose of the committee is to standardize the nomenclature, methodology and applications of spice extracts as natural antioxidants. The new committee was set to meet for the first time during the AOCS national meeting in Cincinnati in May.

IUPAC St. Andrews meeting

On August 16-18, 1988, the 41st meeting of the International Union of Pure and Applied Chemistry (IUPAC) Commission on Oils, Fats and Derivatives was held at the University of St. Andrews, St. Andrews, Scotland. Thirty delegates representing 18 countries attended the meeting. Projects under active evaluation by the commission include: Determination of Mineral Oil Residues (capillary column GC), Determination of the Color of Lecithins (spectrophotometric method), Determination of Lead in Oils and Fats by AAS (graphite furnace), Determination of Triglycerides According to Their ECN by Reversed-Phase HPLC, Determination of Phospholipids by HPLC, Determination of Fatty Acids by Capillary



GLC and Determination of Benzo-a-Pyrene (rapid method).

New topics proposed for study include: develop standardized methods for the determination of contaminants in edible oils due to chemicals remaining in tankers from previous cargoes (Unilever provided the commission with an outline of methods for consideration); obtain precision data for peroxide value and acidity value methods; institute a collaborative study for the evaluation of cyclohexane as a replacement solvent for carbon tetrachloride in the iodine value method; develop a method for detecting the presence of refined oils in cold-pressed oils; form a joint committee with the IUPAC Food Chemistry Commission to consider ways to assess lipid oxidation and develop a standardized method for determining phosphorus in oils (most likely based on graphite furnace AAS).

Joyce Beare-Rogers is currently chairman of the IUPAC Commission on Oils, Fats and Derivatives. AOCS Uniform Methods Committee Chairman David Firestone is a permanent observer to the commission.

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