

# Methods development update

The following are highlights from the Uniform Methods Committee (UMC) meeting held May 11, 1988, during the AOCS annual meeting in Phoenix. The meeting included reports by technical committee chairpersons on their committee activities.



## Technical projects increasing

The number of AOCS technical committee projects continues to increase. The reports of the technical committee chairpersons at the AOCS national meeting in Phoenix noted the following active projects:

- color in oils—automatic vs. manual (collaborative study)
- marine lipids and ethyl esters (collaborative study)
- cyclohexane as an alternate solvent for IV determination
- oil stability index (OSI) vs. AOM (collaborative study)
- a search for an alternate solvent for PV determination
- protein methodology study through the Smalley Program
- update to the insoluble impurities method (Ca 3-46)
- update to the polyethylene in oils method (Ca 16-75)
- *cis* & *trans* PUFA by GLC (collaborative study)
- triglycerides by HPLC (collaborative study)
- tocopherols by HPLC (collaborative study)
- SFC by NMR—AOCS and IUPAC methods (preliminary study)
- solvent comparison study (by Ralph Lane; see box)
- flavor score by GLC (collaborative study)
- ISO oil extraction method (under review for possible adoption)
- expansion of Kjell-Foss protein method to other oilseed meals (collaborative study)
- adoption of wax in sunflower oil method
- adoption of Geneva Harmonization Protocols for collaborative studies
- review of oil and chlorophyll methodology for rapeseed
- review of the AOCS chlorophyll method Cc 13d-55
- review of methodology for oil in oilseeds by NMR

The efforts of the technical committee chairpersons and committee members in carrying out these studies are greatly appreciated.

## New technical committee

Arthur Walkling of Best Foods Research Center, Union, New Jersey, has recruited eight people interested in developing standard physical methods for fats and oils and related products. David Firestone, chairman of the UMC, has approved the committee. Walkling is in the process of preparing a com-

mittee action plan. Anyone interested in serving on this committee is asked to contact him.

## Methods editor

David Firestone has volunteered to be the new methods editor following the retirement of Russell

## Other studies

### Oilseed extraction

Ralph Lane of the College of Human Environmental Studies, University of Alabama, reports that a study is being undertaken to compare the oilseed-extracting characteristics of various solvents. The study will be conducted by a graduate student working with Lane. The purpose of the study is to develop basic information on how the use of different solvents affects the apparent oil concentration in oilseeds.

Such information is necessary before any attempt can be made to harmonize the various methods used for the determination of oil in oilseeds. This kind of study and harmonization were suggested by Lars Ake Appelqvist in the January 1985 issue of *Food Laboratory Newsletter* on pages 13-14.

Lane's preliminary proposal calls for the study of several solvents. These include diethyl ether, petroleum ether, hexane and possibly other solvents as suggested in the *Food Laboratory Newsletter* article by Appelqvist. Oilseeds for study include soybeans, cottonseed, rapeseed (canola variety), corn germ, peanuts, sunflower and safflower. Roger Sinram has agreed to assist in the preparation of the oilseed samples. Results should be available by late summer or early fall 1988.

### Oxygen in butter fat

The International Dairy Federation, with headquarters in Brussels, Belgium, is seeking participants for a collaborative study to validate a method for determining oxygen in butter fat. The most likely methodology will involve the use of an oxygen electrode to measure headspace oxygen in containers of butter fat. Anyone interested in participating is asked to contact the AOCS technical director at AOCS headquarters.

## Methodology

Walker. Firestone will be working with the AOCS headquarters staff in editing the methods.

### Associate methods editors

David Firestone has again made a plea for volunteers to become associate methods editors to review various sections and subsections of the AOCS methods. Currently, there are 359 methods listed in *Official Methods and Recommended Practices*. These methods were last reviewed completely in 1973.

In the methods, there are 13 major sections, which can be subdivided into 35 subsections. At this time, associate methods editors have been found to review 19 of the subsections (including seven major sections); additional reviewers still are needed.

Current associate methods editors are:

- Section A (Aflatoxin methods only)—Albert Athnasios
- Section C—Thomas Smouse
- Section D—George Battaglini
- Section H—Alan Held and Ilona Kocan
- Section J—Bernard Szuhaj
- Section M—David Firestone and David Berner

- Section R—Examination Board, David Berner and Sandra Burr

- Section T—Gerald Szajer

Main sections currently without reviewers are:

- Section A—Vegetable Oil Source Materials (except Aflatoxin-related methods)
- Section B—Oilseed By-Products
- Section E—Glycerin
- Section F—Sulfonated and Sulfated Oils
- Section G—Soap Stocks
- Section S—Testing Industrial Oils

The goals in reviewing the methods include the following:

- delete methods no longer used or applicable; these will be considered for "surplus" status.
- obtain recommendations for updating retained methods.
- obtain recommendations for replacing current methods with newer methods.
- obtain recommendations for new methods needed by industry.

Anyone interested in serving as an associate methods editor is asked to contact either David Firestone or David Berner.

### New UMC members

Albert Athnasios of Nabisco, John Callahan of Colgate-Palmolive and Bryan Madison of Procter & Gamble are new members of the UMC, replacing William Link, Lincoln Metcalfe and Russell Walker. William Link, who served as methods editor from 1971 to 1978, reviewed the entire book of methods in 1973. Link also served as UMC chairman from 1984 to 1986. Lincoln Metcalfe had been an active UMC member since 1960. Russell Walker was methods editor from 1983 to 1988.

### 4th edition of methods book

A decision has been made on the new style and format for the 4th edition of the AOCS book of methods, scheduled to be published in December 1989. The decision was based on a survey made in 1986 and a vote by members of the UMC and several technical committees. Methods will be written in *JAOCS* style and the format will be 8 1/2 × 11" pages in a two-volume ring binder.

Dave Berner  
AOCS Technical Director

# Polyunsaturated

# Fatty Acids

A monograph edited by Wolf-H. Kunau and Ralph T. Holman, 258 p.  
Hardbound—\$20 for AOCS members and students, \$30 for nonmembers.

This monograph records the contributions of twenty noted researchers who contributed to the 1975 AOCS symposium on unsaturated fatty acids. The symposium was premised on the increasing need to combine separate disciplines in lipid research. Speakers thus were invited who specialized in chemical, physical and biochemical properties of lipids. Topics included biosynthesis, oxidation and regulation of metabolism, analysis, chemistry/physicochemistry, and experimental and clinical data. Illustrations and references enhance this collection.

Order from: American Oil Chemists' Society, P.O. Box 3489, Champaign, IL 61821-0489 USA