

## The Importance of a Good Technical Library for Research, Development, and Production

THE SCIENTIFIC LITERATURE represents a tremendous amount of man-years of work that is available to research, development, and production through a technical library division, which is maintained at an average expenditure of about 1 to 2% of the research budget. The value received at this small cost is not measurable by accurate and specific criteria, but it is not difficult to visualize that in research one obtains experimental results, history of experiences, and data at a cost in effort and supplies comparable to as little as a p.p.m. or even a millimicro  $\gamma$  of the supplies and labors expended to produce this information.



M. M. Piskur

A technical library may be defined as a classified arrangement of publications pertaining to theoretical and applied sciences. In industrial technical libraries the material is selected to further the needs of the specific organization of which it is a part. For instance, depending on the business involved, it may be directed to fats and oils, petroleum, foods in general, textiles, pharmaceuticals, aeronautics, steel, or other fields. These libraries are not merely depositories or morgues of past work but together with their staffs are a functional part of a whole organization, which pass on to users the important information and data required for research, development, and production. In general, the technical library with the workers associated therewith may be the source of all or most of the following services: scientific-literature searches, bibliographies, patent reviews, market statistics and investigations, published standards and specifications which are guides to purchases and preparation of goods for markets, abstracts and reports on new information pertinent to the work in progress and interests of the business, translations of foreign language publications, editorial assistance, research-report files-processing, lending books and journals, media through which information and literature may be obtained or borrowed from surrounding or distant locations, and a general petty service of many types.

The function of a technical library in business can be illustrated by projects which are handled by the literature staff in our field of fats, oils, and detergents.

For example, an excess of edible fats or oils on the market and its concurrent reduction in value brings to the library jobs which reflect a desire to find new outlets or to develop new products; thus information on animal tolerances for fats, economic levels in feeds, desirability, etc., are required judiciously to add fats to livestock feeds. Search for new outlets will also pose questions on methods of converting non- and semi-drying oils to drying oil uses; properties necessary for a cacao fat substitute in confectionery; present practice and status of glyceride oils in regard to core oil, rubber manufacture, synthetic detergents, lubricants, metal working oils, textile oils, and tinning oils; manufacture of fatty alcohols, dibasic acids, fatty aldehydes, amines, and waxes and their uses.

Public-relations activities of the business may require reviews on relationship of various types of fats and of sterols to hypertension and to arteriosclerosis; the place of fats in the diet normally and under abnormal conditions like obesity, diabetes, hypertension, etc.; the nutritive value of margarine *versus* butter; and judicious storage of fat in the home and use in cooking.

Oil-extraction activities of research and production men require data on relation of temperature and time of cooking of seed meats on oil-extraction yields, quality of the oil, and nutritive value of the by-product meal; composition, yields, economic value, and nutritive value of the products derived from the milling of wheat germ, sunflower seed, sesame seed, and various fruit pits; solubility, density-composition relations of miscellas, and toxicity of extraction solvents; effect of concentration of the lye, shear, and temperature on the quality of the oil and loss occurring in refining; and effect of all processing on the stability of the products.

FUNDAMENTAL INFORMATION finds use in public relations, research, and applications. For example, such queries may pertain to the composition, structure, biological synthesis, or metabolism of fats, oils, and associated lipides; relationship of composition to nutritive value and absorption by the intestines; accessory nutritive factors associated with fats; and relationship of climate, fertilization, and soil on production, composition, and characteristics of the oils produced.

The literature survey tasks listed, which illustrate some of the activity of industrial libraries, are not final when completed for a specific request for there is a continued effort to ferret out pertinent items from current literature for the parties interested as long as the subject or problem is or may become of interest to research, development, and production.

The importance of the library is also evident when one considers the possibility of expensive research which has already been described in the literature, losses incurred by production or purchase of substandard product for which standards could have been available in library files, etc.

(Continued on page 18)

# NEWS

## New Members

### Active

- Reidar Vincent Arneson, chemical engineer, Archer-Daniels-Midland Company, Minneapolis, Minn.  
 Hermanus Nicolaas Bosschieter, director of research, Crok and Laan Oilworks, Wormerveer, Holland  
 George William Boyd, sales manager, Fatty Acid Department, Emery Industries Inc., Cincinnati, O.  
 Leonard Woodworth Brown, chemist-in-charge, Armour and Company, West Fargo, N. D.  
 Irving Gaines, sales manager, Industrial Division, Onyx Oil and Chemical Company, Jersey City, N. J.  
 Lyle E. Gast, research chemist, Northern Utilization Research Branch, Peoria, Ill.  
 John C. Ingram, chemical engineering consultant, self-employed, Chicago, Ill.  
 William R. Kochever, chemical engineer, Pittsburgh Plate Glass Company, Red Wing, Minn.  
 Mecys Kriaucionis, chemist, Canada Packers Ltd., Montreal, Quebec, Canada  
 Edward D. Milligan, process engineer, Chemical Plants Division, Blaw-Knox Company, Chicago, Ill.  
 Desmond John New, chemist, General Mills Inc., Minneapolis, Minn.  
 L. Leon Robinson, chemist, Armour and Company, Fort Worth, Tex.  
 Percy A. Voight, chemist, Oscar Mayer and Company, Madison, Wis.  
 Albert G. Williamson, coordinator of research and quality control work on oils, Canada Packers Ltd., Toronto, Ontario, Canada  
 Richard Warren Wright, chemist, Kansas Soya Products Inc., Emporia, Kan.

### Individual Associate

- Boyd B. Mahon Jr., assistant sales manager, Votator Division, National Cylinder Gas Company, The Girdler Company, Louisville, Ky.  
 A. H. Amir Saleh, sub-manager, S. H. Ghassemieh and Company, Teheran, Iran

### Corporation Associate

- Office de l'Huile d'Olive de Tunisie, Rene They, directeur, Sfax, Tunisie

## Reports on Experimental Station

A report on research work being carried out at the Reggio Calabria Experimental Station for the Essential Oil Industry, Rome, Italy, has been received from Giovanni Coppa-Zuccari, Servizio de Documentazione Tecnica, Rome.

Projects at the station include engineering, growing of oil plants, research on essential oils from wild plants, and the application of physical and chemical techniques to the analysis of essential oils. The station has recently directed installations at the Bergamot Consortium, and part of the staff is presently working to establish a parallel control for the American and the Italian spectrophotometric methods for the testing of lemon oil.

## Reports on Vyner Degreasing Process

A report on the Vyner Process for the degreasing of raw bones has been received from Sheppy Glue and Chemical Works Ltd., Queenborough, Kent, England, where the first such plant was opened for full-scale production last year. The entire operation can be carried out in about half an hour, and a temperature is never reached which could be harmful to collagen.



Lloyd Osipow of Foster D. Snell Inc., New York, spoke on "Sugar Esters" at the Synthetic Detergent symposium September 26, 1956, at the Chicago meeting of the American Oil Chemists' Society.

## November Issue Will Carry Fall Meeting Reports

A FULL REPORT of the technical program and of the activities of the 30th annual fall meeting of the American Oil Chemists' Society will be given in the November 1956 issue of the Journal of the American Oil Chemists' Society by S. S. Chang of Swift and Company, Chicago.

Announcement of the winners of the Fatty Acid Award offered by the Fatty Acid Division of the Association of American Soap and Glycerine Producers Inc., for the best manuscript on a fatty acid subject, will also be made in the November issue.

Means of procuring the required two-thirds favorable vote for the approval of certain proposed changes in the constitution and by-laws of the Society were also discussed at the fall meeting, as a follow-up to the mailing of statement and proxy to each active member, also to each honorary or emeritus member, in mid-September. The special committee in charge of the proposals is headed by D. L. Henry of Law and Company, Atlanta, Ga.

## A. O. C. S. Commentary

(Continued from page 4)

To carry the thinking further, such intangible values may be appreciated as furthering the education of the research staff, the convenience and economy of organized service in locating sources of supplies, addresses, standards, specifications, suitable analytic methods, etc.

In closing, let it be emphasized that the cheapest answer to any problem, the cheapest man-hours expended for its solution, and the cheapest organization of efforts for its solution are obtained by full use of all the facilities of the technical library.

M. M. PISKUR  
 Literature Chemist  
 Swift and Company  
 Chicago, Ill.

## Offers 1956 Commodity Year Book

The 1956 edition of Commodity Year Book, published by Commodity Research Bureau Inc., 82 Beaver street, New York, N. Y., is now available at \$12 a copy, or \$12.50 outside the United States.