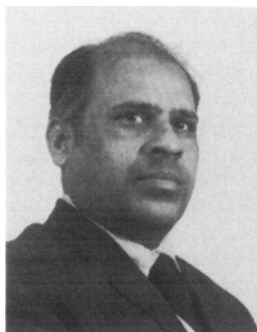


AOCS Short Course on Processing and Quality Control of Fats and Oils

June 26-28, 1978 • Kellogg Center, Michigan State University • East Lansing, MI

Following are abstracts for four of the topics to be covered during the AOCS Short Course:



Salad and Cooking Oils, R.G. Krishnamurthy, Group Leader, Kraft Inc.

Per capita consumption of salad and cooking oils in the United States has increased from 9.2 lb in 1960 to 19.9 lb in 1976. Thus they account for almost 40% of the visible lipids consumed by the U.S. public. This lecture will cover the sources of raw materials and processes for production of salad and cooking oils. Their physical and chemical characteristics in relating to their keeping quality, performance, and nutritional aspects will be discussed. Effect of different methods of handling and storage of finished oils will be reviewed. Techniques used for determination of the quality of raw and finished oils will be evaluated.



Finishing Oil Handling and Storage, D.R. Erickson, Director of Science Services, Swift & Co.

A finished oil is defined as that fat or oil product ready for use alone or as an ingredient without further processing. It represents the culmination, and carries the costs, of all the processing steps required to present it for use in its final desired form. The goal of finished oil handling and storage is to maintain the quality obtained through previous processing. Possible effects on quality through exposure to air, moisture, light, storage temperature, storage times, type of container, and physical movement of product will be discussed. Also included will be bulk handling of edible oil products.



Refining and Degumming Systems for Edible Fats & Oils, R.A. Carr, Director of Quality Assurance, Hunt Wesson Foods

Crude edible fats and oils contain variable amounts of nonglyceride impurities, such as free fatty acids, nonfatty materials generally classified as gums, and color pigments. Most are detrimental to end product quality and therefore must be eliminated to make the end products suitable for human consumption, by removing the impurities with the least possible loss of neutral oil and tocopherols. Key theoretical and practical factors for degumming and refining are discussed with particular reference to processes, flow charts, control systems, and analytical testing requirements. In addition to typical large volume oils, such as soy and cotton, techniques also are reviewed for smaller volume oils, including palm, lauric, and corn.



Solvent Extraction of Oilseeds, K.W. Becker, Director, Arthur G. McKee & Co.

The removal of edible oils from oilseeds was practiced by the Egyptians many centuries ago. Some of the developments leading to today's worldwide solvent extraction industry are discussed, and a brief history of the industry in the United States from 1940 to date is included. The theory of solvent extraction is outlined in practical terms. Several types of solvent extraction and desolventizing systems are explained. Also, typical preparation and extraction processes for presscake, soybeans, and some high oil content seeds are illustrated. Some reasons for taking extra precautions in the preparation process and the desolventizing process when producing human edible soy protein products are explained. In addition, energy conservation suggestions are included. ●