

North Central Section

Holds Meetings

The North Central Section held its first meeting of the 1975-75 year at Zum Deutschen Eck Restaurant in Chicago on September 10, 1975. The meeting was highlighted by the after dinner presentation of Mr. David Sessa of the Northern Regional Research Laboratories entitled "Oxidation of Soybean Phospholipids and the Resultant Bitter Taste."

Mr. Sessa discussed the autoxidation of soybean phosphatidylethanolamine (PE) and phosphatidylcholine (PC) in aqueous emulsion relative to their specific molecular constituents. The prooxidant property of copper ion and the antioxidant property of ethylenediamine tetraacetic acid on oxidation of soy PE and PC were illustrated.

The development of bitter taste upon autoxidation of soy PC was reviewed. Schiff bases of soy PE with saturated and unsaturated aldehydes are reported to form bitter taste and rancid, beany, or fishy odors. Flavor of the Schiff bases depends on the aldehyde used as reactant.

To support the hypotheses that bitter flavor notes are associated with oxidized phospholipids, he isolated the choline containing phosphatides from a chemically oxidized soy PC and lyso-PC as bitter principles. Characterization of the fatty acid constituents of these phospholipids revealed epoxy, keto, and hydroxy functions. Soy PC isolated from commercially available natural soybean lecithin was found to be neither bitter nor oxidized.

This was the first of a series of meetings planned to add interest by varying ethnic cuisines and decor. Everyone in attendance thoroughly enjoyed the warm German hospitality and the excellent family style meal. ■

USDA Chemists

in

Cultural Exchange

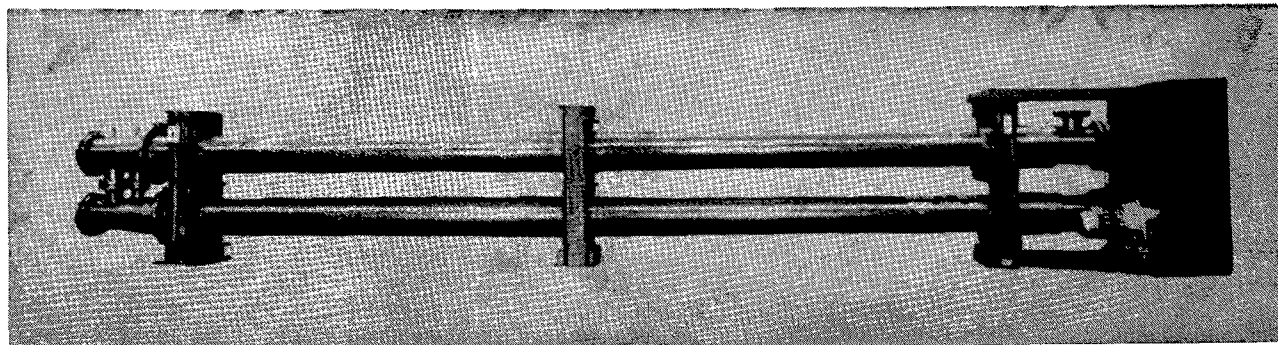
Dr. Edwin N. Frankel, an AOCS member and chemist at the US Department of Agriculture's Northern Regional Research Laboratory, Peoria, Illinois, has been invited to spend a year at Queen Mary College, University of London, as a senior visiting research fellow in the Department of Chemistry. This month he started work with Professor B.C.L. Weedon, who is an international authority in the field of reactions and synthesis of fatty acids and carotenes.

This postdoctoral leave, under a grant awarded by the Science Research Council of England, has been approved by the US Department of State under provisions of the Cultural Exchange Act. The year's grant will give Dr. Frankel an opportunity to continue work in which he was active some years ago on the autoxidation of vegetable fats and oils. He will develop information particularly fundamental to increasing the flavor stability and food nutrient values of soybean oil. His planned research has a direct relationship to increasing national and foreign markets for US grown soybeans and other edible fats.

Dr. Frankel joined the staff of the Northern Laboratory, part of USDA's Agricultural Research Service, in 1956, after receiving his PhD degree in agricultural chemistry from the University of California at Davis. He had obtained an MS at Davis earlier in 1952 and a BS from Michigan State University in 1950.

Mrs. Frankel will accompany her husband to London, as will three of their five children. ■

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