

# THE FOUR CORNERS...



By EUGENE MARSHACK, Chairman,  
International Relations Committee;  
and JACOBO FURMAN L., R. GERBRACHT, and  
GIOVANNI JACINI, Corresponding Secretaries

## *Chairman's Comment . . Eugene Marshack*

It is with a great deal of pleasure and anticipation that I am taking over from Raymond Reiser the chairmanship of the International Relations Committee. This Committee owes its success to his vigorous and untiring efforts and initiative, and with the help of all the Committee members I hope to continue to promote good will and foster closer collaboration with our colleagues overseas.

The International Relations Committee has been in existence only a relatively short time. Our goal is to facilitate access of our foreign friends to the sources of Fat Research and Technology in this country, and in turn, know more about the corresponding developments in other countries.

This activity will undoubtedly take various forms, from stepping up personal contacts and mutual visits to helping organize foreign participation in professional meetings held here and abroad.

This is but the third time "The Four Corners" section appears in our journal. The response from the two previous ones has exceeded our expectations, not only by the interest it generated among many of our readers, but also by the enthusiasm and eagerness of our corresponding secretaries. There are many countries where we have no such representation, and as the list grows, "The Four Corners" section will become more complete and more global in its coverage. We hope, then, to be able to make it more frequent, and to publish promptly news relating to Fat Technology and Research supplied to us by our corresponding secretaries.

I am personally looking forward to the pleasure of greeting our foreign friends at our AOCS meetings, and hope that we will be able to further the efforts of Dr. Reiser and of all those who contributed to the success and growth of this project.

## *Chile . . . . . Jacobo Furman L.*

### **Discussion On Fisheries In Chile**

On the occasion of its 33rd anniversary, the Chilean Institute of Chemical Engineers organized a round table discussion on fisheries in Chile.

The topics developed by several speakers were the following:

*Recovery of Glue Waters*, James Steel, Chemical Engineer, Institute of Fishing Development.

The speaker explained the different methods used at different times in the recovery of glue waters. He pointed out the composition of the glue water as well as that of its concentrates for Chilean anchovies (*Engraulis Ringens*). He stated that despite the economic importance of glue water recovery, the question has not yet been satisfactorily resolved as far as Chilean anchovies are concerned and that further research is needed.

*Fractionation of Fish Oil by Liquid Liquid Extraction*, Dante Pesce, B.S. in Chemical Engineering.

Mr. Pesce described some experiments with anchovy oil in order to obtain the separation of a saturated fraction from another highly unsaturated one, appropriate for preparation of varnishes and paints.

The experiments were carried out in a countercurrent multistage contact equipment with furfural used as a solvent in different proportions. The experiments were amplified by adding commercial hexane as a second solvent to improve extraction.

*Possible Industrial Uses of Fish Oil*, Jaime Wisniak, Chemical Engineer, PhD Chemical Engineering Purdue University, Head of the College of Engineering, Catholic University of Chile.

Mr. Wisniak described various experiments made by the Department of Chemical Engineering of that University with the aim of finding new uses for Chilean fish oil. Some of these experiments were:

Hydrogenation: Determination of causes of the "induction period" and possibility of its elimination.

Extraction: Determination of solubility curves in binary and ternary systems of fatty acids and their methylic esters in solvents like furfural, acetonitrile, etc.

Epoxidation: Procuring of stabilizers and plasticizers for the PVC industry. Effect of simultaneous chlorination.

Hydrolysis: Application of the Twitchell process.

Separation by Molecular Sieves: Analysis of the possibility of separating fish oil into two fractions; one of which would contain all fatty acids chains of more than 20 carbons.

*Concentrate of Hake Proteins*, Oscar Salas J., Chemical Engineer, Professor of Unit Operations at the University of Chile.

The speaker discussed the problem of malnutrition in the underdeveloped countries and in Chile. He described new techniques in this field at the Institute of Technological Investigation of the University of Concepcion. The process developed granted a concentrate of proteins of the Chilean hake (*Merluccius Gayi*) in which several solvents were used. He added that based on the experimental data obtained it was possible to formulate a flow-sheet for the commercial production consisting of: head-cutting, pressing, grinding, coagulating, extracting, desolventizing and drying.

## *Holland . . . . . R. Gerbracht*

Cargill, Inc., Minneapolis, Minnesota, plans to build a new soybean processing plant in Amsterdam with an annual capacity of 300,000 tons. It is expected that the extractor used will be of the Rotocell type, manufactured by Blaw-Knox. The oil will be further processed to refined oil. The plant is scheduled to start operation in October 1967. Most of the equipment will be manufactured in Holland.

The Remia margarine works at Den Dolder has designed and installed a new continuous bleacher. Mixing takes place by means of a special disc mixer, designed by Werkspoor N. V.

## *Italy . . . . . Giovanni Jacini*

### **New Bertolli Processing Plant**

The Bertolli food industry, with its new plant in Lucca, has reached a new high level of production of the traditional Italian product, olive oil.