THE FOUR CORNERS . . .

By EUGENE MARSHACK, Chairman,
International Relations Committee;

JACOBO FURMAN L., and GIOVANNI JACINI Corresponding Secretaries

Chile . . . . . Jacobo Furman L.

Merger of Fisheries in Chile

Towards the end of 1960 the production capacity of the fish meal industry in the northern zone of the country was below 100 metric tons of raw fish per hour.

In order to promote the economic development of that zone, it was decided to increase the installation of fisheries. With this aim in mind the Government passed a law that same year granting various tax reductions and other advantages to the companies engaging in the development of sea-products. This promoted a dramatic increase in this industrial activity as can be appreciated from Table I.

Investments in the fishing fleets, industrial installations and construction exceeded $85,000,000, and a labor force of 4,500 persons was employed.

Unfortunately this excessive growth in the capacity of installed fish meal plants and the fluctuations in the anchovy catch, created sharp drop in plant utilization. Consequently, this damage represented heavy losses for a good number of these industries.

In order to solve this serious economic problem in that zone of the country and help fisheries, the Chilean Government has applied a plan which determines the definite closing down of certain plants and encourages the merging of others. Thus, the tendency is to merge companies with plants installed in different ports in order to face the fluctuation in the anchovy market as well as to coordinate activities with fleets, freezing and canning facilities. Up to now several companies have already merged and others are working towards this end. Under this plan it is expected that the original 38 companies will be reduced to one fourth of that number.

Fifth Session of the Chilean Chemical Society

From May 18 through 20, the fifth Session of Chemistry of the Chilean Chemical Society was held in Santiago.

Among the numerous papers presented in the various fields of chemistry, the following were particularly interesting for the Fat and Oil Industry: D. Ballester, D. Cerda, L. Masson, M. A. Mella, M. Pak, I. Penachiotti, J. Vinagre, H. Schmidt, *Sunflower Seed Meal. Chemical Composition and Biological Quality of Protein*; D. Ballester, M. A. Tagle, E. Yañez, A. Reid, M. Téllez, E. Trabucco, G. Donoso, *Nutritional Value of Rapeseed Meal Supplemented with Casein*; D. Ballester, M. A. Tagle, A. Reid, M. Téllez, E. Trabucco, E. Yañez, G. Donoso, *Rapeseed Meal as a Protein Source in Rat Feeding*."

Chilean Society of Nutrition, Bromatology and Toxicology Meets

On June 28 the Chilean Society of Nutrition, Bromatology and Toxicology met to discuss the subject: "New Protein Sources for Human Consumption." The papers included were: F. Monckeberg, *Introduction and General Considerations*; D. Ballester, E. Yañez, I. Barja, N. Pak, A. Reid, M. Téllez, A. Trabucco, G. Donoso, *Biological Value and Toxicity of Fish Meal, Sunflower Seed Meal and Rapeseed Meal. The Quality of the Protein and Protein Value of Mixtures Prepared with These Materials*; I. Barja, M. Muñoz, E. Duran, M. Urrea, E. Yañez, J. V. Santa María, G. Donoso, *Protein Quality and Acceptability of Some Fish Meal Enriched Foods*; A. Maccioni, F. Monckeberg, N. Valdés, G. Donoso, *Biological Value, Acceptability and Tolerance in Children During the Lactation Period, of Proteins from New Sources*; R. Spada, A. Maccioni, L. Vega, V. Gattás, I. Barja, F. Monckeberg, G. Donoso, *Mixtures Based on Sunflower Meal, Skimmed milk and Fish Meal, Tested in Preschoolers.*

New Installations

Compañia Industrial, in the city of Temuco, is building a new screw-prepressing plant for rapeseed with a 270 metric ton 24-hr capacity. This capacity is based on a 15% final oil content in the cake. The same company is installing a new solvent extraction plant with a 170 metric ton 24-hr capacity for the cake.

Compañia Productora Nacional de Aceites S. A. in the city of Santiago, is building a new continuous refining, bleaching and deodorizing equipment for vegetable oil with a capacity of 5,000 pounds per hour.

(Continued on page 412A)

TABLE I[a]

Anchovy Meal Industry: Growth and Use of Capacity

Year	Number of plants	Theoretical capacity of raw material M.t./hour	Fish meal capacity M.t./hour[b]	Annual fish meal capacity M.t.[c]	Actual annual production of fish meal M.t.	Use of capacity %
1960	4	88	15.2	31.000	28.360	91.5
1961	4	98	16.9	34.480	40.849	118.5
1962	6	181	31.2	63.650	73.679	115.8
1963	12	335	57.8	117.910	92.636	78.6
1964	24	743	128.1	261.320	156.638	59.9
1965	29	1.068	184.1	375.560	70.579	18.8
1966	38	1.264	217.9	444.520	195.000	43.9

[a] I. Tilic, "Fish Meal Industry in Chile," Instituto de Fomento Pesquero 1966.
[b] Average conversion factor 1:5.8.
[c] Annual Potentiality = 1 shift × 8 hours × 300 days × 85%. Conservative criterion.

Four Corners . . .

(Continued from page 408A)

Italy . . . . . Giovanni Jacini

International Symposium on Oil Technology

An International Symposium on Oil Technology will be held in Milan, Oct. 4–5, 1967, in the Industrial Exhibition quarters, organized by the Italian Oil Chemists' Society.

The Symposium is the first of a series of scientific meetings that will take place during the exhibition displaying process plants and equipment for the food industry, domestic transport services and packaging.

The main European constructors of plant equipment and machinery for the fat industry will display at the exhibition.

The purpose of the symposium is twofold: to set forth the technological progress attained in the fat field and to discuss both the technical and economic development prospects involved in oil mill plants. Prospects depend on the gradual expansion of consuming markets due to the establishment of the European Common Market as well as to the industrialization in Communist and African Countries.

The following papers are expected:

EEC Legislation on Fats and Its Bearing on Fat Technology.

Evolution of Fat Consumption in the Various World Countries; Raw Materials and Finished Products Circulation; Considerations on the Industrialization requirements of the Various Countries (FAO).

Financing and Legislation in Favor of New Process Plants (Dr. Selmi, Milan (Italy).

Situation of Oil Technology in East Europe Countries (Prof. A. Rutkowski, Varsav, Poland).

Recent Advances in Oil Seeds Storage and Transport Services (Buhler Co., Uzwil, Switzerland).

Evolution in Olive Oil Extraction Tecniques (Professor Bonnet, Marseille, France).

Vegetable Raw Materials Oil Extraction Plants (Olier Co., France).

Vegetable Fats Refining (Gianazza Co., Legnano, Italy).

Animal Fat Materials Processing (Alfa Laval Co., Stockholm, Sweden).

Recent Advances in Margarine Manufacture (Unilever, Vlaardingen, The Netherlands).

Recent Advances in some Fat Finishing Processes: Filtration, Demargarination (Dr. Bernardini, Rome, Italy).

Guiding Criteria in the Choice of a New Process Plant (Ing. Plebani, Genoa, Italy).

By-Product Utilization (Prof. G. Jacini, Milan, Italy).

NRA Day on Tallow and Derivatives

An International Day of study on tallow and derivatives was held June 21, 1967 in Milan, in the building of the Technical and Scientific Associations Federation (FAST), organized by the National Renderers Association and by the Italian Oil Chemists' Society.

The purpose of the meeting was to submit some new possibilities of use of tallow and derivatives, in fields also far distant from traditional ones and to depict the latest novelties concerning plant equipments and technology.

D. M. Doty of the Fats and Proteins Research Foundation Inc., Des Plaines, Illinois, discussed the prospect of using tallow derivatives as waterproof agents for cement compositions, so as to render these fit for thaw-freeze conditions too. The title of his paper was, *Fat Materials for Cement Compositions.* Other authors and titles are:

S. Raccagni (Sadaf Industrie Chimiche, Fino Mornasco, Italy), *New Chemicals Derived from Tallow, from Fatty Acids and Alcohols: Characteristic and Uses Thereof.*

K. A. Williams (E. R. Bolton, London, England), *Chemical Characteristics of Tallow, Its Fatty Acids, Alcohols and New Derivatives.*

A. Gianazza (Gianazza Co., Legnano, Italy) *New Methods to Produce Fatty Acids and Glycerines from Tallow.*

L. J. Monticelli (G. Mazzoni SpA, Busto Arsizio, Italy), *Technological and Economic Criteria for the Selection of Various Tallow and Tallow Fatty Acid Qualities to Use in Soap Manufacture.*

G. B. Martinenghi (Milan, Italy), *Technological Foundations for a Rational Evaluation of Tallow in Regard to Its Nutritional and Chemical Aspects.*

Surface Waters and Detergents

On May 19, 1967, a Symposium was held in Milan, in the building of the Scientific and Technical Associations Federation (FAST) on "Surface Waters and Detergents; Italian Situation and Future Prospects," jointly organized by the Italian Oil Chemists' Society, the Group of Study of Waters and the "Association Nationale de la Recherche Technique" of Paris.

The purpose of the day was to study both the actual state of detergent pollution of Italian surface waters, and the sanitary, analytical, technological and legislative state of the major detergent-consuming countries (West Germany, United Kingdom, the United States, the Netherlands, etc.)

The situation in Italy is not critical, since the pollution state of almost all the Italian rivers, is appreciably below the minimum percentage considered to be dangerous.

Authors and titles of the papers are listed here:

Tullio Songa (Breda Research Institute and President of the FAST group of study of the waters), *Surfactant Action and the Water Pollution Problem.*

Maria Nives Battiston (Technical Physics Institute, Milan Polytechnic), *Surfactant Influence on the Physical and Chemical Phenomena of Waters (Re-aeration, Sedimentation, Flocculation, etc.).*

Gaetano M. Fara (Sanitary Institute, Milan University), *Toxicological and Microbiologic Aspects: Bacteria and Virus.*

Roberto Marchetti (Zoology Institute, Milan University), *Toxicological and Microbiologic Aspects: Toxicology.*

Linda Goldberg Federico (Agricultural Chemistry Institute, Milan University), *Toxicological and Microbiologic Aspects: Agriculture.*

Erminia Rovere Massarani (Sanitary Engineering Institute, Milan Polytechnic), *Study of the Influence of Surfactants on Biochemical Oxygen Demand* (BOD).

R. Vollenweider (Italian Hydrobiology Institute, Pallanza, Italy), *Phosphorus Eutrophization of Waters.*

Eugenio de Fraja Frangipane (Director of the Sanitary Engineering Institute, Milan, Polytechnic) and Erminia Rovere Massarani (Sanitary Engineering Institute, Milan Polytechnic), *Surfactant Concentration in Milan Municipal Territory Watercourses.*

Paolo Ciattoni and Salvatore Seardigno (Montecatini-Edison's Research Department, Milan, Italy), *New Contributions to the Knowledge of Straight Chain Sodium Alkyl Benzene Sulfonates Biodegradability.*

Riccardo Rismondo (Petrochemical Section, Montecatini-Edison, Milan, Italy), *Anionic Surfactant Biodegradability in an Experimental Cesspool Model.*

G. P. Talamazzi (National Association of Oil, Fat, Soap and Related Products Industry), *Italian Production Prospects (Scientific, Technological and Formulation Aspects).*

G. Jacini (Director of the Experimental Station for Fats and Oils), *Italian Situation Prospects.*

Symposium on Lard

An international symposium on alimentary and technological re-evaluation of swine fats was held at Modena in the Real Fini Hotel on February 25–26, sponsored jointly by the Italian Oil Chemists' Society and the local institutions.

The purpose of the symposium was to examine objectively the alimentary properties of lard, and to compare it with vegetable oils in order to establish its most appropriate field of use and its innocuousness in human nutrition when properly used.

(Continued on page 424A)

Joint Task Force to Investigate Eutrophication

Secretary of the Interior Stewart L. Udall and representatives of the soap and detergent industry recently announced their establishment of a joint task force to make recommendations on a cooperative program to research the problem of controlling eutrophication (overfertilization) of lakes, including the role of phosphates and any possible replacements.

The task force resulted from a Monday meeting, the first in a Department of the Interior series of meetings with many industries to set up a cooperative government-industry program to investigate solutions to the complex and incompletely understood water quality problem known as eutrophication.

Eutrophication is the excessive fertilization of algae and other aquatic plants with nutrients, principally phosphates—a common element found in municipal sewage, human waste, agricultural fertilizers and industrial discharges—and nitrates.

The aquatic plants increase as man's activities add more nutrients and die. Organic deposits pile up on the lake bottom, and the lake becomes smaller, shallower, warmer and organic decay depletes the supply of oxygen. In time the lake becomes a marsh and eventually disappears. The most serious example of eutrophication in the United States is Lake Erie, where much of the oxygen has disappeared and aquatic plants are filling the Lake.

Many industries are being enlisted by the Department of the Interior to aid in the solution of the problem—fertilizer, chemical, and phosphate producers, agriculture and other industries which discharge wastes containing phosphates and nitrates.

The Department of the Interior began its program of cooperation with these industries to solve eutrophication by meeting with the soap and detergent industry, which Secretary Udall said "has demonstrated a responsible attitude toward the public interest in clean water."

The task force established by the Department of the Interior and executives of five major detergent manufacturers and the Soap and Detergent Association will recommend a broad-gauge program of research which may be initiated by government and industry. The industry representatives stated their considered opinion that the likelihood of finding a practical solution to eutrophication is greatest if an over-all research approach to the problem of eutrophication is pursued.

Four Corners . . .

(Continued from page 412A)

During the symposium the following papers were presented:

G. Clément (Science Faculty of Dijon University), *Animal Fats in Human Alimentation.*

L. Travia (Alimentation Science Department of Rome University), *Nutritive and Alimentary Importance of Fats.*

A. Montefredine (President of Italian Oil Chemists' Society), *Swine Fats in Gastronomy.*

B. Ostric-Matijasevic (Yugoslav Institute of Meat Technology, Beograd), *Animal Fat Utilization in Other Industries.*

E. R. Guillaumin (ITERG, Jean Ripert Laboratory, Paris), *Particular Problems in Animal Fat Refining.*

A. Uzzan (ITERG, Paris), *Actual and Potential Utilizations of Animal Fats.*

G. Giolitti (Institute of the Inspection of Animal Origin Foods, Milan University), *Fat Transformation During Sausage Products Curing Period.*

G. B. Martinenghi (Fellow member of Milan University), *Trade Terminology, Characteristics and Requisite Properties of Swine Fats.*

A. Paleni (Fellow member of Bologna University), *Micronic Filtration and Adsorption in Fat Purification.*

B. Doro (Director of the Provincial Chemical Laboratory, Trieste), *Gaschromatographic Researches on Pork Fat-Derived Lard.*

Pilot Plant for Fat Refining

The National Center for Lipochemistry of the National Research Council is located by the Experimental Station for Fat and Oil Industries in Milan.

In the course of 1966 the Center acquired a pilot plant projected by the technicians of the Center and of the Experimental Station, suited for studies on the various steps involved in batch chemical refining of an oil or a fat.

The stainless steel equipment comprises: neutralizers, washers, settling tanks, reactor for olefin removal, vacuum decolorizer, deodorizer, in addition to filters, pumps, collecting tanks, etc.

The machinery has been already intensively tested in the course of the year and it has been used for several refining tests on different olive oil types, sunflower, colza, palm oils and other ones. A particular application of the pilot plant was that for the study on elaidinic acid formation during olive oil refining.

The installation is particularly fit for investigating, under conditions analogous to industrial ones, whether an oil is or is not refinable by chemical way, in what measure and with what results; it is also possible, through the tests run, to trace back operating costs.

The plant is put at disposal of those industries desirous to inspect chemical refining procedures, or particular products to be refined.

Inauguration of the New Westfalia Separator Italiana Building

The new seat of Westfalia Separator Italiana was dedicated in Milan on March 18, 1967.

The building has been designed and constructed with a view to expanded prospects of the German Company, with increased sales of the centrifuges and better service for customers.

The welcome to the guests was given by the General Manager of Westfalia, Otto Mueller Habig and by the Director of Westfalia Italiana, Rolf Engelmeier.

The story has been delineated of Westfalia Separator AG, started in 1893 with the manufacture of the first skimming machine and developed during the past 50 years under the guidance of Werner Habig up to its present stage.

In the oil production field the Westfalia centrifugal separators are among the most widely used. Westfalia Separator Italiana was founded in 1958.

The inauguration ribbon was cut by Mrs. Margot Mueller-Habig. After a visit to the new edifice, a luncheon was offered to the guests by Westfalia Separator.

New Industrial Plant of "Olearia Tirrena"

A new industrial plant of Olearia Tirrena was inaugurated at Aprilia (Latina, Italy) on June 14, 1967.

The plant is located in the neighborhood of Aprilia; capital stock: 1 billion, 4.5 millions Lire, with ownership one third, Società Rumianca, and two thirds, Dr. Giorgio and Oliviero Coreos.

The installations among the largest and most up-to-date in Europe, cover an area of over 110,000 square meters. Their production potential attains 300,000 kos. seed oil/day, equal to one fourth of the entire seed oil production in Italy.

All operations are fully automated and performed under technical and scientific control through the utilization of electronic apparatus.