Seminar to Lead Off Technical Program

AS COMPETITION for the traditional golf tournament and two field trips there will be a seminar on toxic residues Monday afternoon, at the 52nd annual meeting of the American Oil Chemists' Society at the Sheraton-Jefferson hotel, St. Louis, May 1-3, 1961, according to T.J. Potts, program chairman, who is with the Ralston Purina Company.

This is planned to relieve the doubts and uncertainties existing in the food and feed industries about meeting the requirements of the food and drug laws. Among the speakers will be Robert S. Roe of the Food and Drug Administration, on "Procedure for Establishing Tolerance Levels"; Harry E. Heineman of the Pet Milk Company, on "Pesticides in the Dairy Industry"; and George C. Decker of the Illinois Section of Economic Entomology, on "Pesticides—Their Uses, Values, and Dangers."

By categories the technical papers to be given on Tuesday and Wednesday are as follows:

Plant Operations or Development

Flash Desolventizing of Defatted Soybean Flakes Washed with Aqueous Alcohols to Yield a High Protein Product, by G.C. Mustakas, L.D. Kirk, and E.L. Griffin Jr., Northern Regional Research Laboratory, Peoria, Ill.

Plant-Scale Comparisons of Miscella Refining and Conventional Refining of Cottonseed Oil, by G.C. Cavanagh, Ranchers Cotton Oil Company, Fresno, Calif.

Centrifugal Separation of Stearine in a Continuous Commercial Solvent Winterization Process, by G.C. Cavanagh, Ranchers Cotton Oil Company, Fresno, Calif.

Solvent Extraction of Peanut Grits, by L.K. Arnold and R. Basu Roy Choudhury, Iowa State University, Ames

Evaluating Commercially-Stored Cottonseed Oils, by Lewis A. Baumann, Market Quality Research Division, U.S.D.A., Washington, D.C.

The Role of the Engineering Contractor in Design of Food-Processing Plants for Sanitation and Good Housekeeping, by K.W. Becker, Blaw-Knox Company, Chicago, Ill.

Plant Operation of Flash Desolventizing Systems, by E.J. Loew and E.D. Milligan, Engineering Management Inc., Park Ridge, Ill.

Processing and Fat Composition

Fatty Acid Composition of Individual Seeds on a Soybean Plant, by H.B. White Jr. and F.W. Quackenbush, Purdue University, Lafayette, Ind.

The Structure of Crystalline Octadecynoic Acids, by H. Susi, A.S. Jahn, and D. Lutz, Eastern Regional Research Laboratory, Philadelphia, Pa.

Production of Iron Weeds (*Vernonia anthelmintica*) Seed Oil. Isolation of Divernolin, Trivernolin, and Vernolic Acid, by C.F. Krewson, J.S. Ard, and R.W. Riemenschneider, Eastern Regional Research Laboratory, Philadelphia, Pa.

G.C. Cavanagh

Eric Jungermann

Molecular Arrangement of Long-Chain Aliphatic Compounds in the Solid State, by Erik von Sydow, Swedish Institute for Food Preservation Research, Goteborg, Sweden

Mustard Seed Processing to Yield Protein Feed Meal and Oil with Recovery of Allyl Isothiocyanate, by G.C. Mustakas, L.D. Kirk, and E.L. Griffin Jr., Northern Regional Research Laboratory, Peoria, Ill.

Search for New Industrial Oils. VII., by F.R. Earle and I.A. Wolff, Northern Regional Research Laboratory, Peoria, Ill.

Search for New Industrial Oils. Oils of *Cruciferae*, by K. L. Mikolajczak, T.K. Miwa, F.R. Earle, and I.A. Wolff, Northern Regional Research Laboratory, Peoria, Ill.

The Preparation and Purification of Monoglycerides. II. Direct Esterification of Fatty Acids with Glycerol, by R. Basu Roy Choudhury, Iowa State University, Ames

Detergents

Correlation Between Critical Micelle Concentration, Fatty Soil Removal, and Solubilization, by M.E. Ginn and J.C. Harris, Monsanto Chemical Company, Dayton, O.

Determination of Germicide Mixtures in Soaps and Detergents, by Eric Jungermann and E.C. Beck, Armour and Company, Chicago, Ill.

Identification of Soapstock by Gas Chromatography Techniques, by E.C. Beck, Eric Jungermann, and W.M. Linfield, Armour and Company, Chicago, Ill.

Statistical Approach to Detergency Evaluation, by W.M. Linfield, Eric Jungermann, G.A. Davis, and E.C. Beck, Armour and Company, Chicago, Ill.

Sodium Alkyl *alpha*-Sulfopelargonate, $C_7H_{15}CH(SO_3Na)C$) R. Wetting and Related Properties, by A.J. Stirton, R.G. Bistline Jr., J.K. Weil, and W.C. Ault, Eastern Regional Research Laboratory, Philadelphia, Pa.

The Oxyethylation of 9,10-Octadecanediols and 9,10-Dihydroxystearonitrile Nonionic Soaps, by A.N. Wrigley, F.D. Smith, and A.J.Stirton, Eastern Regional Research Laboratory, Philadelphia, Pa.

A Method of Evaluation of Detergent Efficiency in the Spray Cleaning of Hard Surfaces, by John W. McCutcheon Inc., Morristown, N.J.

Biochemistry and Nutrition

Effects of Dietary Fats, Protein, and Cholesterol on Atherosclerosis in Pigeons, by Hugh B. Lofland and Thomas B. Clarkson, Bowman, Gray School of Medicine, Winston-Salem, N.C.

Release of Liver Triglycerides During the Rare-Earth, Fatty-Liver Cycle, by Fred Snyder, E.A. Cross, and G.C. Kyker, Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tenn.

The Effect of Germination and Subgermination Moisture Levels upon the Fat of the Soybean. II. Subgermination, by B.E. Brown, E.M. Meade, and Jean R. Butterfield, University of Toronto, Ontario, Canada

The Mechanisms of the Heme-Catalyzed Lipid Oxidation in Animal Tissues, by Basil G. Tarladgis, Michigan State University, East Lansing

Application of Quantum Mechanical Considerations for the Interpretation and Identification of the Meat Pigment Spectra. I. Cooked Meats; II. Cured Meats. The Mechanisms of Curing and Fading in Meats, by Basil C. Tarladgis, Michigan State University, East Lansing

Encephalomalacia in Aged Chickens, by L.J. Machlin, Monsanto Chemical Company, St. Louis, Mo.

High Level of Vegetable Oils Stimulate Growth in Chicks, by R.E. Isaachs, Raymond Reiser, and J.R. Couch, Texas A&M College, College Station

Edible Fats and Oils

A New Technique for the Isolation of Flavor Components from Fats and Oils, by S.S. Chang, A.E. Staley Manufacturing Company, Decatur, Ill. (present address: Rutgers University)

Characterization of the Reversion Flavor of Soybean Oil, by S.S. Chang, K.M. Brobst, H. Tai, and C.C. Ireland, A.E. Staley Manufacturing Company, Decatur, Ill.

Hydrogenation of Linolenate. IV. Kinetics of Chemical and Catalytic Reduction, by C.R. Scholfield, Janina Nowakowska, and H.J. Dutton, Northern Regional Research Laboratory, Peoria, Ill.

Hydrogenation of Linolenate. VI. Procedure of Evaluating

E.J. Dufek

S.F. Herb

Hydrogenation Catalysts for Selectivity, by H.J. Dutton, Northern Regional Research Laboratory, Peoria, Ill.

Hydrogenation of Linolenate. VIII. Survey of Commercial Catalyst, by E.E. Johnson, Duncan MacMillan, H.J. Dutton, and J.C. Cowan, Northern Regional Research Laboratory, Peoria, Ill.

The Effect of Some Amino Acids on the Oxidation of Linolenic Acid and Its Methyl Esters, by Reinhard Marcuse and Eric von Sydow, Swedish Institute for Food Research, Goteborg, Sweden

Autoxidation of Fatty Materials in Emulsion. I. Pro-oxidant Effect of Histidine and Trace Metals on the Oxidation of Linoleate Esters, by D.H. Saunders, J.E. Coleman, J.W. Hampson, P.A. Wells, and R.W. Riemenschneider, Eastern Regional Research Laboratory, Philadelphia, Pa.

The Fatty Acid Composition of Lard, Including Minor Components, by S.F. Herb, Paul Magidman, F.E. Luddy, and R.W. Riemenschneider, Eastern Regional Research Laboratory, Philadelphia, Pa.

Chemical Reactions and Derivations

Kinetic Investigations into Glucose-, Fructose-, and Sucrose-Activated Auto-oxidation of Methyl Linoleate Emulsions, by Fahmy Mabrouk and L.R. Dugan Jr., American Meat Institute Foundation, Chicago, Ill.

Use of Mercuric Acetate Addition to Prepare *cis*-Linolenate and Other Unsaturates, by H.B. White Jr. and F.W. Quackenbush, Purdue University, Lafayette, Ind.

Preparation of Alkyl Esters from Highly-Unsaturated Triglycerides, by E.J. Gauglitz Jr. and L.W. Lehman, U.S. Fish and Wildlife Service, Seattle, Wash.

Preparation of Low-Cost, Solvent-Blown, Rigid Urethane Foams from Castor Oil, by C.K. Lyon, Vilma H. Garrett, and L.A. Goldblatt, Western Regional Research Laboratory, Albany, Calif.

The Preparation and Properties of Polyoxyethylene Methyl Glucose Fatty Acid Esters, by F.H. Otey, T.E. Yeates, C.L. Mehltretter, and C.E. Rist, Northern Regional Research Laboratory, Peoria, Ill.

The Absolute Optical Configuration of *cis*-12:13 Epoxyoleic Acid from Vernonia Oil, by L.J. Morris, Hormel Institute, Austin, Minn.

Composition of Rosin Acids in Tall Oil Fatty Acids, by C.A. Genge, J.A. Hudy, and D.E. Reid, Hercules Powder Company, Wilmington, Del.

Nitrogenous Derivatives of Cyclic Fatty Acids, by W.J. Dejarlais and H.M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.

Ozonization of Soybean Oil. The Preparation and Some Properties of Aldehyde Oils, by E.H. Pryde, D.E. Anders, H.M. Teeter, and J.C. Cowan, Northern Regional Research Laboratory, Peoria, Ill.

Preparation and Purity of Linoleic Acid from Corn, Cottonseed, and Safflower Oils, by B. Sreenivasan and J.B. Brown, Ohio State University, Columbus, O.; E.P. Jones, V.L. Davison, and Janina Nowakowska, Northern Regional Research Laboratory, Peoria, Ill.

Pressure Reaction of Maleic Esters with Vegetable Oils, by W.R. Miller, E.W. Bell, J.C. Cowan, and H.M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.

Reaction of Unsaturated Fatty Alcohols. XIII. Copolymers of Polyunsaturated Fatty Vinyl Ethers and Cyclic Monomers, by E.J. Dufek, L.E. Gast, and H.M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.

Reaction of Unsaturated Fatty Alcohols. XIV. Preparation and Properties of Styrenated Fatty Vinyl Ether Polymers, by Wilma J. Schneider, L.E. Gast, A.W. Schwab, and H.M. Teeter, Northern Regional Research Laboratory, Peoria, Ill.

Reaction of Unsaturated Fatty Alcohols. XV. Styrenation of Fatty Vinyl Ether Polymers in Terpene Solvents, by L.E. Gast, Wilma J. Schneider, H.M. Teeter, G.E. McManis, and J.C. Cowan, Northern Regional Research Laboratory, Peoria, Ill.

Preparation and Solubility of Metal Soaps of Wool Wax Acids, by W.R. Noble, J.T. Scanlan, and Abner Eisner, Eastern Regional Research Laboratory, Philadelphia, Pa.

Metal Soaps of Wool Wax Acids as Stabilizers for Plasticized Polyvinyl Chloride, by Abner Eisner, W.R. Noble, J.F. Scanlan, and W.E. Palm, Eastern Regional Research Laboratory, Philadelphia, Pa.

Improved Yields in the Acid-Catalyzed Addition of Phenols and Phenyl Ethers to Oleic Acid, by W.C. Ault and Abner Eisner, Eastern Regional Research Laboratory, Philadelphia, Pa.

Low-Temperature Aminolysis of Methyl Stearate Catalyzed by Sodium Methoxide, by E.F. Jordon Jr. and W.S. Port, Eastern Regional Research Laboratory, Philadelphia, Pa.

Preparation, Characterization, and Evaluation of Mono- and Diesters of Carboxystearic Acid, by E.T. Roe, G.R. Riser, and Daniel Swern, Eastern Regional Research Laboratory, Philadelphia, Pa.

Analytical Methods

Application of Infrared Analysis to Fatty Acid Mixtures, by W.E. Link and K.M. Buswell, Archer-Daniels-Midland Company, Minneapolis, Minn.

New Methods for the Analysis of Industrial Aliphatic Lipids, by H.K. Mangold and Rudolf Kammereck, Hormel Institute, Austin, Minn.

The Quantitative Determination of Tall Oil Fatty Acids by Gas Chromatography, by R.B. Iden and E.J. Kahler, Battelle Memorial Institute, Columbus, O.

Thin-Layer Chromatography of Phospholipids, by L.H. Horrocks, Cleveland Psychiatric Institute and Hospital

Chromatostrip Analysis of Fatty Acid Derivatives, by T.H. Applewhite, M.J. Diamond, and L.A. Goldblatt, Western Regional Research Laboratory, Albany, Calif.

Modification of a Low-Cost Commercial Infrared Spectrophotometer to Improve Photometric and Wavelength Accuracy, by Eugene L. Schneider, Ralston Purina Company, St. Louis, Mo.

The Chemistry of the 2-Thiobarbituric Acid Test for the Determination of Oxidative Rancidity in Foods. I. Some Important Side-Reactions, by Basil G. Tarladgis, A. Pearson, and L.R. Dugan Jr., Michigan State University, East Lansing

Quantitative Estimation of Esters by Thin-Layer Chromatography, by Eduardo Vioque and R.T. Holman, Hormel Institute, Austin, Minn.

Analysis of Lipids and Oxidation Products by Partition Chromatography. Hydroxy Fatty Acids and Esters, by E.N. Frankel, D.G. McConnell, and C.D. Evans, Northern Regional Research Laboratory, Peoria, Ill.

Application of Countercurrent Distribution to Elucidation of the Composition of Polyoxyethylene (8) Stearate, by F.P. Wetterau, V.L. Olsanski, and J.F. Brandner, Atlas Powder Company, Wilmington, Del.

Correlation of the Mean-Molecular Weights of Commercial Alkylbenzenes with Gas-Liquid Chromatographic Data, by A.H. Silver, W.H. Adam, H.M. Gardner, and H.J. Keily, Lever Brothers Company, Edgewater, N.J.

STARTING TIME for the golf tournament, which is in charge of R.T. Doughtie Jr., U.S.D.A., Memphis, will be 11 a.m., Monday, at the Crystal Lake Country club, St. Louis. The fee will be $9 per golfer, including lunch, tips, and fees. Spectators may purchase luncheon tickets at the club or at the Society registration desk at the Sheraton-Jefferson.

A choice of field trips Monday afternoon may be made between a visit to the Purina research facilities or to the Anheuser-Busch brewery.

The program of Purina dramatizes the growing role research is playing in the manufacture of commercial feeds. The purpose is to develop products and feeding programs that will help livestock, poultry, and dairy farmers to produce meat, milk, eggs, and wool more abundantly and economically. In the organic and inorganic laboratories machines identify minute substances, such as minerals, vitamins, amino acids, and others, in both ingredients and manufactured feeds. The original farm, which was established in 1925 near Gray Summit, Mo., has been expanded

to 778 acres, accommodating 25,000 poultry and 2,500 animals.

In operation since 1852, the brewery is a city in itself. Ninety buildings cover 70 city blocks, with covered floor space equal to 115 acres of ground. Daily capacity of the water plant is 70,250,000 gallons. There are about 10 miles of railroad tracks within the property; 165 freight cars can be placed on loading tracks at one time, and 122 more on holding tracks. In 1960 Anheuser-Busch sold more than eight million barrels of beer, more than any brewery in the history of the industry.

OTHER ACTIVITIES during the spring meeting will be a mixer Sunday evening, following which the past presidents of the Society will hold their annual reunion at the Missouri Athletic club with Lamar Kishlar as chairman; the dinner dance on Tuesday; and the Awards luncheon Wednesday to honor winners in the Smalley series, golf tournament, and Bond manuscript judging. The ladies will enjoy entertainment of their own, with Mrs. E.L. Metcalf as chairman.

On the business side, the president of the Society, R.W. Bates, of Armour and Company, Chicago, will give his address Monday morning; the chairman of the Nominating and Election Committee, N.D. Embree, will announce results of the balloting by mail on officers for 1961-62; there will be a business meeting for active members on Wednesday for the installation of officers with A.R. Baldwin coming in as president; and there will be numerous committee meetings from Sunday through Wednesday; the Governing Board will meet Sunday afternoon, with Mr. Bates presiding, and again on Wednesday, at the close of the technical session, with Dr. Baldwin presiding.

An attendance of around 500 is expected. E.L. Metcalf, president of the R.J. Brown Company, St. Louis, is general chairman. To obtain advance registrations a mailing to the membership was made in mid-March by F.W. Ries, finance chairman. Robert Morton of Ralston Purina is in charge of the field trips.

Albert L. Elder, with the Corn Products Company since 1944, has been appointed director of its newly established Institute of Nutrition. He has been serving as coordinator of research. For the past year he has been president of the American Chemical Society. The Institute will be concerned with improvements in the nutritional quality of products and with the encouragement and support of nutrition research as well as with public education.

Neal E. Artz has been appointed assistant director of the Institute; Dorothy M. Rathmann (1950) and Louise R. Morrow (1955) have been named to the professional staff in Argo, Ill.

• *Received in the Journal Office*

Leaflets from the Commonwealth Scientific and Industrial Research Organization, Australia, treat of these topics: "Extraneous Matter—Methods and Standards," and "Syneresis of Rennet Curd. Part 1. Effect of Time and Temperature," by A.J. Lawrence; "Recent Research on Cheese and Butter," by G. Loftus Hills; "Filtration of Cream," by G.G. Crittall, L.F. Gunnis, G.S. Pickhaver, I. Howey, and G. Loftus Hills; "Bitter Flavour in Cheese," by J. Czulak; "Fluorescence Microscopy of Milk and Dairy Products," by N. King.

Pinturas y Acabados Industriales, Vol. II, No. 12, for November-December 1960 has been received from Aribau 153, Barcelona 11, Spain.