

## **Dehydrated Foods Reviewed and New Determinative Methods Described**

• The Division of Agricultural and Food Chemistry of the ACS organized for the 123rd annual meeting in Los Angeles, March 15 to 19, 1953, a symposium on dehydrated foods. Publication of the papers from that symposium begins with two in this issue. • The objectives of research on dried fruits would be furthered by a more nearly complete knowledge of the chemistry involved, reports Richert in a symposium survey of the subject. In pointing up some of the important developments, he discusses progress in study of the Browning reaction, the role of enzymes and storage temperature, and factors influencing acceptability. • Knowledge of chemical changes in dehydrated milk during storage is reviewed by Shipstead and Tarassuk in their symposium paper. Some of the results of such changes are staleness, oxidized flavor, hydrolytic rancidity, and insolubility. Although exact causes and reactions are complex and sometimes obscure, several contributing factors have been studied to give results which are summarized in this survey. • Swenson, Schultz, and Owens undertook a study of pectin grading tests under stimulation of a survey showing that preservers favor a breaking measurement. A balance-plunger apparatus was developed by which both small deformations and breaking strengths can be measured. Viscosity vs. grade curves can be used to estimate grade by elasticity if grade by breaking has been determined, or grade by breaking if elastic modulus has been determined. Viscosity measurement can be used for a rapid determination. • Despaul, Weinstock, and Coleman have found evidence that lipoid phosphoric acid is a reliable quantitative index of the egg content of products which are fresh or have not been in storage in excess of six months. A method is described which facilitates performance of the determination and provides better agreement in results obtained by the average technician.

## **Corn Proteins Improved with Amino Acids**

• A contribution to the knowledge of protein supplementation with amino acids is presented by Sure, with the cooperation of workers in Arkansas and Guatemala. Marked improvement in the efficiency of proteins of some corn was effected by the addition of threonine to the rations in the presence of lysine and tryptophan, while with other corn, methionine was also required to effect the improvement. Threonine produced a marked specific effect on economy of food utilization.

## **New Method Fills a Need in Herbicide Determination**

• In response to a need arising from the use of isopropyl *N*-(3-chlorophenyl)carbamate (CIPC) to control growth of grasses, Gard and Rudd have developed methods for the determination of microquantities of this compound in soil, head lettuce, sugar beets, onions, and cotton seeds. The method, involving extraction, hydrolysis, distillation, and photoelectric measurement, is said to have a lower practical limit of sensitivity of 0.05 parts per million of CIPC.