

New Books

The Freezing Preservation of Foods

DONALD K. TRESSLER and CLIFFORD F. EVERS. 3rd Edition. Avit Publishing Co., Inc., Westport, Conn. Volume I, "Freezing of Fresh Foods," 1235 pages, \$18. Volume II, "Freezing of Precooked and Prepared Foods," 572 pages, \$10. Reviewed by HANS LINEWEAVER and M. J. COPLEY, Western Utilization Research and Development Division, Agricultural Research Service, USDA, Albany 10, Calif.

THE AUTHORS have done a tremendous job in revising their important compendium on this subject to reflect the tremendous growth of the frozen-foods industry in recent years and its importance in supplying the consuming public of the United States with perishable and seasonally produced foods. The authors realized that this growing industry is no longer adequately described in the 25 chapters and some 900 pages of their second edition; therefore they undertook the large task of assembling and evaluating frozen food information in this new edition consisting of 55 chapters and 1807 pages. The technologist, the en-

gineer, the microbiologist, the chemist, the geneticist, the commercial processor, the locker plant operator, the home freezer, the restaurant owner, retailer, wholesaler, and others will all find important information here. The authors have sought and received assistance from many experts who work in the many scientific and technological fields encompassed by the frozen food industry.

Only 8 of the 55 chapters, however, were supplied wholly or in part by contributors. The compendium remains chiefly the work of the authors, aided by consultants and reviewers. It goes almost without saying that a book covering such an immense subject must include less on certain subjects than some readers will want. The chemist may desire more chemical information, and similarly the microbiologist and engineer. The chemist, however, can make good use of Chapter 9, entitled "Changes Occurring During the Preparation, Freezing, and Cold Storage, and Thawing of Foods," and can consult references and also other chapters that deal with specific commodities. The comprehensive reference list at the end of each chapter is very welcome.

Information on the history of freezing is given, but chiefly this work is a report on present frozen food practices. These practices on uncooked foods are covered in Volume I by seven chapters dealing with the freezing of fruits and vegetables, including the juices and juice concentrates; one chapter each on meat, poultry, fish, shellfish, game, and dairy products (including eggs); separate treatment of dehydrofreezing, home food freezing, locker plant operation, quick freezing systems, warehousing, retailing, frozen food cookery, microbiology, quality control, and packaging.

The second volume, on cooked and prepared foods, is largely an expansion of a single chapter in the previous edition. An extremely wide variety of products is considered, ranging from soups to canapes to entrees to complete meals and desserts, including ice cream and confections. Consideration is given to many of the special problems encountered with cooked frozen foods, even though it is not possible to answer all questions unequivocally. Some formulations of prepared frozen foods are given. Information on objective tests for quality and on standards for grades of frozen foods are given in the appendices of Volumes I and II, respectively.

"The Freezing Preservation of Foods" is an important reference book, and a guide to the processing, handling, and home use of foods. Its special value is that it makes comprehensive information readily available to the total frozen food industry, including the processor, warehouseman, distributor, transporter, retailer, institutional user, and home user. It will thus help the industry to place better quality foods on the table.

LITERATURE AVAILABLE

Nitrogen Solutions. Handbook discusses manufacturing with nitrogen solutions, plus basic information on various nitrogen solutions, granulation versus mixing, considerations and calculations in formulation, and plant and personnel safety. Also provides information on selecting solutions, and reviews such topics as: uniformity of ammoniation and absorption, reversion, temperature, alkalinity and acidity, hygroscopicity and solubility, and the use of urea and other specific materials. Address Dept. A&F, Agricultural Service Director, SOHIO CHEMICAL Co., P.O. Box 628, Ft. Amanda Rd., Lima, Ohio.

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