

New Books

Sugar—From Scarcity to Surplus

By HUBERT EDSON with a foreword by PIETER HONIG, arranged for publication by ALFRED E. LEWIS. Chemical Publishing Co., New York 1958. 224 pages. Illustrated. Price: \$5.00. Reviewed by FRANCIS JOSEPH WEISS.

IN LOOKING BACK over 62 years of service to the sugar industry, first as a chemist, then as a plant builder, and finally as an engineering consultant, the author presents in a most entertaining style his colorful experiences in research, travel, and action connected with the building up of the world sugar empire during the time of his eminent activities. But the book is more than a mere story, as it provides much interesting information on various aspects of the sugar industry—such as cane cultivation, irrigation systems, construction of sugar factories, the development of modern sugar technology, and the role of the chemist in the sugar industry.

It is very illuminating to read what the Grand Old Man of the sugar industry has to say about the sugar chemist: His duties changed from those of a mere sucrose book-keeper to those of a director of factory operations. While in the first stages of building up the sugar empire of today the emphasis was on mechanical engineering, the emphasis shifted towards chemical engineering as the chemical properties of cane juices and sucrose became better known. Thus the chemist became the logical man not only for gathering the information necessary for efficient operations but also for directing these operations in the extracting and refining plant.

When Mr. Edson started his career as a sugar chemist, during the Louisiana campaign of 1888-89, world sugar production was about 5 million tons per year. By 1956 it had risen to 43 million tons centrifugal and 6 million tons "primitive" sugar. But these figures, impressive as they may be, do not tell the whole story. Mr. Edson's fascinating book affords vivid glimpses behind the scenes of this sometimes most violent expansion, and shows who were the men that stood in the forefront of this extraordinary development. Most dramatic is his description of the mad rush into sugar production at the beginning of World War I, when sugar prices went up from 2 to 20 cents per pound, only to drop back to 2 cents—and this in much shorter time. As president of

the West India Management and Consultation Company he had a first class opportunity to observe these convulsions at close range, and to see fortunes disappear as fast as they were made.

Yet the end results of these hectic developments were rather beneficial, inasmuch as sugar which formerly was a luxury to be enjoyed only by the rich became an important item in the diet of hundreds of millions of people. However, at a time when the annual per capita sugar consumption of about 100 lb. in the United States stands in stark contrast to India's 26, Japan's 10, and Pakistan's 8 lb., one cannot speak, as the author implies, about sugar surplus. One can say only that but a small part of the potential sugar requirements of the world have become effective demands. To make more sugar available to all those people who because of their low calorie intake would draw the greatest benefits from larger consumption of this relatively inexpensive, high calorie food, the sugar industry could avail itself of a very sensible suggestion of Mr. Edson, namely, an integration of sugar extraction and sugar refining that has recently been made feasible by the introduction of active carbon, and could lead to considerable reduction of manufacturing costs.

Mr. Edson's book will be read with pleasure and interest by every sugar man, but is also warmly recommended to every agricultural chemist, agricultural economist, and food technologist. It will be an inspiration to younger people in these professions.

Fertilizer Application Brochure

A 20-page illustrated brochure on fertilizer application has been published by the National Plant Food Institute, 1700 K St. N.W., Washington 6, D. C. Called "Methods of Applying Fertilizer," it is the second revision of the publication first issued in 1938.

In the booklet are recommendations for applying fertilizer to field, vegetable, fruit, and nut crops and to forests. Foliar application and liquid fertilizer also receive attention, as does fertilizer application equipment.

LITERATURE AVAILABLE

Chromatography. Brochure gives detailed information on chromatography apparatus and accessories. Request brochure K-25, Dept. A&F, KENSINGTON SCIENTIFIC CORP., 98 Rincon Rd., Berkeley 7, Calif.

Reprint List. Over 100 articles covering many phases of public health studies in relation to medical, pharmaceutical, and food problems. Obtainable from Dept. A&F, LA WALL AND HARRISON RESEARCH LABORATORIES, 1921 Walnut St., Philadelphia 3, Pa.

Sliding Belt Conveyor. Handles as much as 22,500 lb./hr. of 150 lb. cu. ft. material. Materials may be wet or dry, lumpy or granular, light or heavy, smooth or abrasive. Features include use of abrasion and heat resistant belts spliced for smooth running and leak resistance; screw take-ups for easy belt adjustment and proper tracking; shaft mounted speed reducers; and adaptability for quick changes in length. Bull. BCB-101 available from Dept. A&F, CARPCO MFG., INC., Jacksonville 6, Fla.

Bulk Storage. Brochure on "Economic Bulk Storage with Steel" outlines advantages of steel storage, and contains data on suggested tank sizes for various storage capacities. Dept. A&F, SAPULPA TANK CO., P.O. Box 218, Sapulpa, Okla.

Esters. Revised edition of 24-page catalog, "Esters by Glyco," now ready. Includes descriptions of glycerol, glycol, and polyethylene glycol esters of higher fatty acids made on tonnage basis. Lists physical properties and commercial uses of both edible and nonedible esters. Write to Dept. A&F, GLYCO PRODUCTS CO., INC., Empire State Bldg., New York 1, N. Y.

Safety. Two publications available for industry—one for employees, the other for foremen. "Rules for Safety," 40 pages, covers use of power tools, stacking material, lifting and carrying, and accident prevention do's and don'ts, how's and why's. Book 8, for foremen, is compilation of 52 talks which cover all major types of occupational accidents. Free copies may be obtained from Dept. A&F, NATIONAL SAFETY COUNCIL, 425 N. Michigan Ave., Chicago 11, Ill.

Processing Equipment and Systems. Bimonthly magazine dealing with equipment and systems for mixing and blending, size reduction, bulk materials handling, pelleting and densifying, and size classification announced. Called *Pointers*, magazine is available to those in chemical processing and allied industries. Write Dept. A&F, SPROUT, WALDRON & CO., INC., 130 Logan St., Muncy, Pa.