

NEW BOOKS

Chemical Pathways Of Metabolism

Edited by DAVID M. GREENBERG, x + 460 pages, Academic Press, Inc., New York, N. Y., 1954. \$11.00. Reviewed by SIDNEY S. CHERNICK, Laboratory of Biochemistry and Nutrition, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, Bethesda, Maryland.

"Chemical Pathways of Metabolism" does very well what the editor, Dr. D. M. Greenberg, established as its purpose: "... to survey the existing knowledge of the chemical steps in the metabolism of the major constituents of living organisms." The first volume is introduced by two papers of interest to those who wish to understand modern concepts of metabolism. "Free energy and metabolism" is discussed by Dr. Pardee in brief but lucid form seldom encountered in the field of thermodynamics. The second chapter, "Enzymes in Metabolic Sequences" by Dr. D. E. Green, deals with the reconstruction of metabolic sequences in the cell from enzymatic data currently available. The prospects and pitfalls of this approach are critically reviewed by the author.

The next four chapters cover carbohydrate metabolism completely and authoritatively. The authors, Stumpf, Krebs, Cohen, and Hassid, have all made important contributions and are active in the area they review. In the organization of the material particular attention has been paid to the comparative aspects of biochemistry, which are too often neglected by "mammalian" biochemists. The free energy data presented by Krebs has not heretofore been available for ready reference.

The volume concludes with two chapters on lipid metabolism. "Fat Metabolism and Acetoacetate Formation" by Chaikoff and Brown is distinguished by thorough presentation of the intermediary metabolism of fatty acids with particular reference to acetoacetate formation. In the last chapter, "Sterol and Steroid Metabolism," Fukushima and Rosenfeld discuss the chemistry, biochemistry, and physiology of these substances.

Throughout the text liberal use is made of diagrams, structural formulas, equations, etc. Chemical formulas are clearly and accurately presented. Each chapter is thoroughly documented with references extending into 1954. In many cases the authors have presented previously unpublished findings.

Type and paper are of good quality and author and subject indexes are adequate.

"Chemical Pathways of Metabolism" probably will be of greatest value to graduate students and it will find frequent use by chemists, bacteriologists, nutritionists, etc., who may require thorough understanding of the subjects covered but are not obliged to cope with the voluminous literature in these fields of metabolism. This book is an outstanding resume of progress in metabolic research and will serve as a source of inspiration for future investigators.

Aircraft Spraying of Insecticides

Office of Information, U.S. Department of Agriculture, Washington 25, D.C. Single copies free.

"How to Spray the Aircraft Way" is the title of this nontechnical bulletin intended to give the farmer what he needs to know about aircraft application of insecticides.

The bulletin also contains charts and formulas on aircraft performance, spray formulations, and acreage calculation for the aircraft operator.

Bulletin was prepared by the Agricultural Research Service's Aircraft and Special Equipment Center.

Western Fertilizer Handbook

CALIFORNIA FERTILIZER ASSOCIATION, 475 Huntington Drive, San Marino 8, Cal. 1954. 160 pages. \$1.00.

This is the second edition of the fertilizer handbook. The first edition was published in September 1953 and the supply has been completely exhausted. The original edition of this book received widespread approval from farm and industry representatives. The handbook contains a wealth of information and is well illustrated, including eleven color plates. It is primarily intended to provide information for farmers and others who use commercial fertilizer.

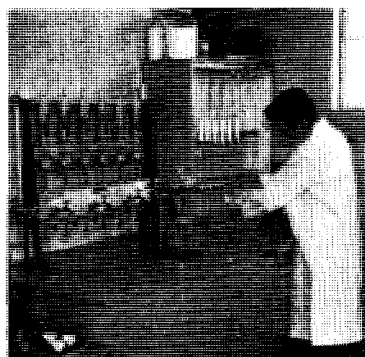
The handbook is considered to be indispensable for anyone who wants information about the use of fertilizers in western agriculture, and the fact that it is once again available will be welcome news to many who were unable to obtain a copy of the previous edition.

Maryland mill installs new LABCONCO laboratory



D. A. STICKELL and Sons, Hagerstown, have stepped up control and research activities with their new LABCONCO feed laboratory. LABCONCO specialized steel furniture and apparatus save time, permit full operation with minimum staff.

Note safety dispensing stand (for acids and caustic) at far left. Carboys are stored in cabinet. Dangerous solutions are elevated by vacuum, dispensed over lead top table.



SIX-UNIT GOLDFISCH fat extractor (for fat and carotene determinations) sits on cabinet specially designed to speed this work.



LABCONCO KJELDAHL apparatus (for protein determinations) is 12-unit hoodless combination model complete with water control and digestion timer. At right is LABCONCO illuminated titration table.

WRITE TODAY for free illustrated catalog BB-54. Tell us what you're considering. You'll get helpful information by return mail. Laboratory Construction Company, 1115 Holmes Street, Kansas City, Missouri.