

*Abnormal and Pathological Plant Growth*, Brookhaven Symposia in Biology No. 6. Office of Technical Services, Department of Commerce, Washington 1954, 303 pp., \$ 2.10.

The staff of the Biology Department of the Brookhaven National Laboratory deserve to be congratulated both for the subject they chose to discuss at the symposium held in August 1953 and for the volume in which the symposium is reported. One of their purposes was to demonstrate that the subject abounds in fascinating problems that can profitably be studied; this is so clearly achieved that the organisers of the symposium will not be to blame should they fail to achieve their second purpose of attracting more workers to the subject. The fifteen papers printed in full are by authoritative workers with varied experiences and techniques; many are profusely illustrated and have sizeable bibliographies. The papers together not only summarise current knowledge on the causes and types of abnormal growth, but also provide a guide to the literature, particularly valuable for a subject that has its original papers scattered over an extraordinarily wide range of journals. The printed discussion after each paper is mainly useful by indicating what points are controversial. It does not fill many pages, but might with advantage have been more severely edited. To print question and answer when the answer is "I do not remember", is irritating rather than helpful. Perhaps the greatest cause for congratulations, in days when the high cost of books threatens to prohibit book-owning, is that so much information should be offered so attractively at such a modest price.

F. C. BAWDEN (Harpenden)

*Metabolic Integrations*, by P. G. WATSON, 12 pp., W. Heffer & Sons Ltd, Cambridge, 1954. Price 4 sh.

It is not a bad idea to assemble the main metabolic pathways in eight charts for the students' benefit. There is only a danger, as has also been pointed out by Prof. BALDWIN in his preface, that in using this booklet a tendency may arise among the students to lose sight of the experimental facts upon which these recapitulations are based. When the teacher is aware of this, however, WATSON's diagrams will be of great use to the student for obtaining a survey of metabolism. Unfortunately the designs have not been corrected with sufficient care, so several errors and inaccuracies are still present. This is a drawback for a book that has primarily been written for students.

H. G. K. WESTENBRINK (Utrecht)

*Biochemistry and Physiology of Nutrition*, edited by GEOFFREY BOURNE AND GEORGE W. KIDDER; Vol. I: xiii + 569 pp., price \$ 13.00; Vol. II: xi + 641 pp., price \$ 15.00; Academic Press Inc., New York, 1953.

In their Preface to this book the Editors write: "This treatise was undertaken to gather together in one work the most salient segments of the vast amount of research dealing with the field of nutrition. It was written by specialists and is directed to all workers dealing with problems of metabolism as well as the nutritionist, for the science of nutrition has become to encompass metabolic reactions as well as raw materials". In the reviewer's opinion the editors have merged too great a field of science under the heading "Nutrition". This is impractical for scientific, didactical, and—from the buyer's point of view—pecuniary reasons. Several chapters are of the level of a common textbook of biochemistry, others only give a very elementary introduction to the science of nutrition, while still others are highly specialized and detailed. However, unequilibrated as this work may be it contains several chapters which are worthy of the highest praise. As a counterbalance to the reviewer's critical attitude to the hybrid character of the book he would like to mention in the first place excellent chapters by the Editors themselves, viz. "Structural Changes in Vitamin Deficiency" by BOURNE, and "The Nutrition of Invertebrate Animals" by KIDDER. Further the attention of specialists is to be called in particular to the following chapters: "The Biosynthesis of Proteins" by HENRY BORSOOK AND CLARA L. DEASY, "Vitamins and Hematopoiesis" by T. H. JUKES, "Vitamin C" by B. B. LLOYD AND H. M. SINCLAIR, "The Respiratory Enzymes" by B. L. HORECKER AND A. KORNBERG, and "Coenzymes" by G. DAVID NOVELLI AND MORRIS SOODAK.

H. G. K. WESTENBRINK (Utrecht)