

## BOOK REVIEWS

**The Control of Growth and Differentiation in Plants:** P. F. WAREING and I. D. J. PHILLIPS, Pergamon Press, Oxford, 1970. 303 pp. Price £2.50.

THIS book, written by two physiologists, is an admirable presentation in an integrated manner of both the morphological and physiological approaches to plant growth and development.

Following the first chapter on growth in the higher plant there is a concentration on structural aspects in chapters entitled "Patterns of Growth and Differentiation" and "General Aspects of Differentiation". The chemistry and biochemistry of plant hormones is described briefly in the next chapter, followed by chapters in which hormonal control of root and shoot growth, fruit growth, abscission, apical dominance, phototropism and geotropism are discussed. This section is extremely well integrated by its emphasis on biological phenomena rather than on separate effects of the individual hormones and this approach is continued throughout the book. Following is a chapter on the use of tissue culture methods in studies of differentiation and then chapters on flowering, dormancy and senescence. In the final chapter on the control of development the authors discuss the present state of knowledge in what might be termed the molecular biological aspects of plant growth.

The authors have managed to present the experimental evidence for statements in the text without including therein references to authors and dates. This makes the book particularly easy to read and it is a welcome change from the fairly common practice of presenting a text-book in the style of a literature review.

This book can be highly recommended both as an undergraduate text and for general reading for postgraduates.

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**Progress in Phytochemistry, Vol. 2:** edited by L. REINHOLD and Y. LIWSCHITZ, John Wiley & Sons Ltd, London, 1970. 512 pp. Price £10.

VOLUME 2 contains eight articles and, as in the first volume of this excellent series of reviews, the editors, in choosing their topics and contributors, have maintained a nice balance between the static and dynamic aspects of plant biochemistry. Two articles which will interest plant physiologists as well as biochemists are those by Hatch and Slack on the C<sub>4</sub>-Dicarboxylic Acid Pathway of Photosynthesis and by Mapson and Hulme on the Biosynthesis and Function of Ethylene. These are excellent accounts of two fashionable and important areas of biochemical study. Both topics have actually been covered also in the 1969 or 1970 issues of 'Annual Reviews of Plant Physiology'. There is, however, no comparison in that the depth of treatment here is much greater and the policy of the editors in allowing authors the space to provide well rounded accounts of their subjects has paid off.