

BOOK REVIEWS
OF PUBLICATIONS RELATED TO BOTANICAL WORK
IN THE NETHERLANDS

AUDUS, L. J.: Plant growth substances, Leonard Hill (Books) Ltd. London, 1959.
Price 65/-. 576 pages, 58 illustrations. Size 10" × 6". (Royal 8vo).

This second edition of "Plant Growth Substances" is the first book of a new series entitled "Plant Science Monographs". The series, of which another twelve titles have been announced already, is designed to facilitate the effective application of research in the plant sciences and, as a result of this, the improvement of productivity. In order to present the physiological background of the use of growth-regulating substances in agriculture and horticulture to the layman and the non-specialist, the treatment has been kept as simple as is consistent with accuracy. Some two or three Chapters, nevertheless, will probably be beyond the comprehension of the non-scientific layman. They deal with the nature of plant growth and its control, with the chemistry of the natural and synthetic auxins and with their mode of action in the plant cell. In the remaining Chapters every practical aspect of growth-substance application is covered: auxins as growth stimulants, as initiators of new organs, the use of auxins in grafting and wound healing, the initiation and stimulation of fruit development, the control of the shedding of various parts, the action of auxins as growth inhibitors (bud growth and induced dormancy, general toxicity and use as selective weed killers). The last Chapters deal with the role played by hormones in reproduction, with the calines, with natural plant-growth inhibitors and with the growth substances in the soil. An extensive glossary, five appendices and over a thousand references complete the book. The reader is led through these parts of the domain of plant physiology in an extremely attractive way. Professor Audus is a guide who has not only a keen interest in the history of the existing scientific structures, he is also a good judge of the possibilities and the difficulties of those constructions which are not yet fully established. He has assimilated the large quantity of physiological data so efficiently that the structures formed with them, constituting the Chapters of the book, are each of them extraordinary examples of integration. Moreover, the book is pleasant reading. To anyone interested in plant physiology and in the application of chemicals to plant-growth control "Plant Growth Substances" will be of great value. — Professor Audus stayed a few years in the erstwhile Netherlands East Indies, not as a scientific worker in an Experiment Station but as a prisoner-of-war in a Japanese camp. Since the food was inadequate, serious symptoms of vitamin deficiency spread among the inhabitants. Prof. A. developed in his camp methods to grow yeast, and it is not improbable that many of his companions owe their life to his ability to apply his broad knowledge of general botany on problems of food production, even in the worst circumstances imaginable.

L. A.