

BIOLOGY

Intermediate Botany

By L. J. F. Brimble. Second edition. Pp. viii+562. (London: Macmillan and Co., Ltd., 1939.) 8s. 6d.

THAT in a comparatively short time a second edition of "Intermediate Botany" should be called for is clear evidence that it has been appreciated by teachers and students and has been found as helpful to them as we expected when it first appeared.

While the subject-matter has not been materially altered, the text has been revised and brought up to date in certain directions. Thus in connexion with the discussion of the acceleration of germination a paragraph has been added pointing out the agricultural and economic importance of the recent researches of the Russian investigator Lysenko. By subjecting the germinating grain of winter wheat to low temperature he was able to get it to reach maturity even when sown in spring. This yarovization of grain, as it has been called, is one of the most important botanical discoveries of recent years and its implications will probably have far-reaching results.

In describing the interesting experiments dealing with growth-promoting substances or hormones Mr. Brimble has extended his account by directing attention to the horticultural importance of recent work on this subject, which aims at accelerating the formation of roots on cuttings by treating the latter with synthetic auxins and hetero-auxin. A figure showing the effect of these substances on the formation of roots on cuttings of *Buddleia* (not *Buddleja*) is given.

This and other new figures which have been added increase the attractiveness of the book and will be found helpful by its readers. In some cases also better illustrations take the place of some appearing in the first edition. Thus the photograph of the roadway through the base of the Big Tree (*Sequoia*) and the figure of the Venus fly trap are distinct improvements.

Speaking generally, the value of the book has been enhanced by the careful revision and by the additions made to the text and the illustrations. The second edition will receive as cordial a reception as the first has done.

Practical Botany

A First Year Course for University and Intermediate Science Students. By Dr. S. Williams and Dr. G. Bond. Pp. 96. (London: Edward Arnold and Co., 1939.) 5s. 6d. net.

THIS book follows the method now very popular in the United States for practical laboratory guides whereby the pages are loose; this, as the authors state, allows "for the interleaving of the book with drawing paper and thus the students' drawings should make the completed book a reasonably adequate factual text-book". The authors omit, however, to point out another important advantage of the method they have adopted, that is, the opportunity thus afforded of changing the order of things in conformity with varying laboratory routine.

The authors have wisely kept the number of illustrations down to the absolute minimum—eight figures in all.

The standard of the course is indicated in the title; but the course is very full, thus allowing a certain amount of choice, and accuracy and personal observation and experimentation are obviously the keynotes throughout.

Unlike many science text-books of this standard, this contribution will certainly fill a serious gap, for, so far as we know, there is no satisfactory practical guide to botany of the standard of post-School Certificate and post-Matriculation. It can be recommended to university departments of botany for the use of first-year students, and to schools where botany is taken in the Higher School Certificate examinations.

Vitamine und Hormone:

und ihre technische Darstellung. Von Dr. Hellmut Bredereck und Dr. Robert Mittag. Teil 1: Ergebnisse der Vitamin- und Hormonforschung. (Chemie und Technik der Gegenwart, herausgegeben von Dr. H. Carlsohn, Band 15.) Zweite neubearbeitete Auflage. Pp. xii+138. 7 gold marks. (Leipzig: S. Hirzel, 1938.)

Vitamine und Hormone und ihre technische Darstellung

Teil 2: Darstellung von Vitaminpräparaten. Von Dr. Franz Seitz. (Chemie und Technik der Gegenwart, herausgegeben von Prof. Dr. H. Carlsohn, Band 20.) Pp. xi+205. (Leipzig: S. Hirzel, 1939.) 10 gold marks.

THESE are two indispensable volumes for all who have to follow closely the progress of work in the fields of vitamin and hormone chemistry. They are skilfully prepared encyclopædias giving an immense amount of information in an unusually small compass. Particularly valuable is Dr. Franz Seitz's volume dealing with the technical aspects of the subject. A bibliography of technical and patent literature is given which is alone worth the cost. Two admirable works in a well-planned and well-executed series of monographs. J. C. D.

The Insect Legion

By Dr. Malcolm Burr. Pp. xiv+321+16 plates. (London: James Nisbet and Co., Ltd., 1939.) 12s. 6d. net.

MANY popular books on insect life have appeared in the English language but the present volume, from the pen of a mining engineer, is undoubtedly the best of them. Since Dr. Burr is also himself an original investigator of insect life, besides being a traveller and a linguist, he is able to approach his subject from the widest point of view. The result of his efforts is a book of real charm: it is moreover reliable and accurate as to its facts and details, and its author has widely combed the relevant literature for much of his information. We can unreservedly recommend it as an admirable introduction to its subject and one that will appeal to adults and juveniles alike.