

Les caféiers du globe

Par Prof. Aug. Chevalier. Fascicule 3: Systématique des caféiers et faux-caféiers, maladies et insectes nuisibles. (Encyclopédie biologique, Tome 28.) Pp. 357+17 plates. (Paris: Paul Lechevalier, 1947.) 1,000 francs.

FASCICULE 3 of Prof. Aug. Chevalier's monographic work on the genus *Coffea* and allied genera contains a detailed account of the anatomy of some of the vegetative and reproductive parts, the genetics and variations, the geographical distribution, the systematics, and the diseases and pests of the plants concerned. All these matters are dealt with very fully, and a great deal of information is brought together in one volume. In the genus *Coffea* the basic chromosome number is eleven (as it is in the greater part of the Rubiaceae). Most wild coffees and many cultivated ones have $n = 11$, but most cultivated varieties of *C. arabica* are tetraploid; and triploid, hexaploid, and octoploid variants and hybrids have also been recorded.

The systematic section is a long one, and the treatment accorded to *Coffea* illustrates the taxonomic difficulties met with in a genus composed of wild and cultivated plants. *Coffea* is divided into four main sections; but the subsection *Mozambicoffea* does not appear to be subordinated to any one of them. Within the four sections and the subsection sixty-four species (and one doubtful one) are recognized. Some of the species, for example, *C. canephora* and *C. arabica*, have numerous varieties. Some 'races' and some hybrids are also given binomials. The 'false coffees' described or more briefly indicated in this work are species of the genera *Psilanthus*, *Psilanthopsis*, *Lachnastoma*, *Diplospora*, *Hypobathrum*, *Tricalysia*, *Belonophora*, *Chapelieria*, *Lemyrea*, *Fernelia*, *Cremaspora*, *Polysphaeria*, *Plectronia* and *Randia*, together with several other genera that have in the past been associated with *Coffea*.

Insects and fungi are the worst enemies of coffee, particularly of the more valuable cultivated varieties under certain environmental conditions. The coffee rust (*Hemileia vastatrix*) is naturally dealt with at some length. W. B. TURRILL

Biochemie der Leguminosen und Fouragepflanzen. Von N. N. Iwanoff. Pp. vii+115. (Amsterdam: Dr. W. Junk, 1937.) n.p.

IN 1938, twelve publications appeared in Russian, each containing information collected from the available literature on the biochemistry of one of the following leguminous and fodder plants: peas, beans, soya beans, lentils, clover, sweet-clover, lucerne, lupin, timothy grass, sorghum, common vetch and chick pea. The book under review, which consists mainly of tables, was compiled from the information contained in these twelve publications by the late Prof. N. N. Iwanoff of Leningrad, who unfortunately died before the printing of the book was completed. The 327 tables, with a few explanatory notes, give the chemical composition of the above-mentioned leguminous and fodder plants, each table being accompanied by the relevant reference(s). Nitrogen ('crude protein'), crude fibre, starch and/or other carbohydrates, fat and ash contents are given for all the plants mentioned, and, in addition, for most of them, figures are quoted giving the amino-acid content of the protein(s), the composition of the ash, and analytical data on the fats. Data are also included showing the influence of different growth conditions

and plant varieties on the yield and chemical composition of the fodder plants. More specialized information is not contained in this book, although for clover the hydrocyanic acid, and for lupin the alkaloid content are given, and some figures are quoted for carotene and vitamin C content of peas.

The volume, published in German, is a useful collection of tabulated data, otherwise scattered in journals published in different languages; but, although printed in 1947, the book includes no published information available since about 1938. The table of contents indicates the information contained in the tables, but the numbering of the pages in the book does not correspond to that given in this table, and unfortunately the book has no index.

4/6 J. T.

The Rh Blood Groups and their Clinical Effects

By Dr. P. L. Mollison, Dr. R. E. Mourant and Dr. R. R. Race. (Medical Research Council Memorandum No. 19.) Pp. 74. (London: H.M. Stationery Office, 1948.) 1s. 6d.

A QUESTION one is frequently asked is "Where can I read about Rh?"; but up to date it was difficult to know how to advise the questioner, since he may be a medical practitioner, laboratory worker or a geneticist. The Medical Research Council memorandum fulfils, therefore, a great need. The first part deals with the Rh groups, and a description of the various sub-groups and the different Rh antibodies is given. The triple-gene theory of R. A. Fisher and the *CDE/cde* nomenclature arising therefrom are explained. This theory has been substantiated by all recent work, and a thorough knowledge of it is essential for a complete understanding of the Rh group. The second part details clinical considerations, the importance of Rh in blood transfusions, and the diagnosis and treatment of hæmolytic disease of the newly born.

The last section of the memorandum concerns itself with Rh testing, and several methods of typing cells and testing sera for antibodies are described. The reader intending to carry out Rh testing, however, should not gain a false sense of security from reading this manual, since, in order to obtain consistently accurate results, considerable experience is required; and one would have liked to have seen expressed a more definite opinion with regard to the value of some of the techniques described and more stress laid on the necessity for controls. This memorandum is the most clear, concise and authoritative exposition of the present state of knowledge so far published, and all who are interested in this subject should read it. F. STRATTON

Surveying

Instruments and Methods for Surveys of Limited Extent. By Assoc. Prof. Philip Kissam. Pp. xi+384. (New York and London: McGraw-Hill Book Co., Inc., 1947.) 17s. 6d.

THE author states that this little book has been written to provide a text-book for a short course in surveying for students of all branches of engineering, and that the material presented differs from that normally found in surveying text-books, in that there has been complete re-arrangement and rejection of some subjects usually covered. The scope is that of the requirement of the engineer for surveying, in connexion particularly with the construction and expansion of works, and of the employment of surveying techniques for setting out in shop-practice—