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BOOK REVIEWS

MOOREBY, J.: *TRANSPORT SYSTEMS IN PLANTS*. — Longman Group, London—New York 1981. 169 pp. £ 6.95.

"All plants, from unicellular aquatic algae to large terrestrials trees, are dependent for survival on the transport of a large variety of substances into, out of and through the plant" as says the author in the Preface; therefore much attention of plant physiologists is devoted to these processes and this book belongs among several good monographs on this topic that have recently appeared. Initially, the author describes the structure and ultrastructure of the tissues of transport systems in different plant groups: algae, mosses, ferns, gymnosperms and angiosperms. The second part concerns the movement of carbohydrates into, through, and out of the phloem. The differences between C_3 and C_4 plants are also taken into account. The mechanism of the movement in the sieve tubes has not been solved successfully and various theories are discussed. The third part deals with the uptake and transport of water and ions. The level of the single cell as well as the level of the whole plant growing in a soil are considered. Main attention is given to the general pathways followed by water and ions and to the factors influencing the transport rate. The effect of environmental and other factors on the development of transport systems and, on the other hand, the dependence of growth of leaves, stems, roots, fruit and storage organs, on the transport of organic and inorganic substances are evaluated in the last chapter. The text is clearly written and well illustrated with 93 figures and 18 tables. The book will be appreciated not only by the specialists in this field but also by researchers from other fields or students of biology, botany or agriculture. It is only pity that references and the subject index are not very detailed.

JANA POSPÍŠILOVÁ (Praha)

RENNER, E.: *MATHEMATISCH-STATISTISCHE METHODEN IN DER PRAKTISCHEN ANWENDUNG*. — Pareys Studentexte 31, Paul Parey Verlag, Berlin—Hamburg 1981. 112 pp. Balacron brosch DM 24.—.

The author is professor of the Giessen University and head of the Department of Dairying of the Institute for Breeding and Genetics of Domestic Animals. The book was published for the first time in 1970, this second edition is slightly modified. It contains the following chapters: Distribution of frequencies; Comparison of frequencies; Mean value; Analysis of variance; Calculation of correlations; Error of analytical methods, Evidence of extreme values; Application of pocket calculators for statistical purposes; List of literature; Table supplement; List of the calculation examples employed; Survey of statistical symbols and Subject index. Similarly as the first edition, the publication is assigned to biologists and chemists, *i.e.* non-mathematicians, who need to employ mathematical methods. Therefore complicated derivations and substantiations of individual procedures are omitted. The author summarizes the most frequent situations in which the statistical treatment is to be utilized. Of several alternative methods the simplest and shortest are selected and supplemented with examples of practical application.

JIŘINA ŠVACHULOVÁ (Praha)