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BOOK REVIEW

SCHOPFER, P.: EXPERIMENTELLE PFLANZENPHYSIOLOGIE. BAND 1. EINFÜHRUNG IN DIE METHODEN. — Springer-Verlag, Berlin—Heidelberg—New York—Tokyo 1986. 178 pp. DM 29.—: in German.

The manual contains a collection of laboratory instructions suitable for students during their introductory practicals in plant physiology. It will be certainly appreciated that the book starts with a brief survey of the basic statistical methods, the one or two factorial analysis and the system of SI units. The next chapter describing the rules of security of the laboratory work seems to be less important, as these rules are different in different universities. More interesting are the following chapters: chapter 7 is devoted to the choice of plant material, chapter 8 describes the work under aseptic conditions and chapter 9 deals with basic characteristics of solutions. The vast amount of various methods is now in general use in plant physiology and so it is not easy to select the most important and simultaneously relatively simple methods suitable for practicals. The author describes the manometric techniques, the measurements of irradiance, the photometric methods, the analysis of enzymatic reactions, the methods with radioactive isotopes, centrifugation, electrophoresis, chromatography, potentiometric methods, polarography and the determinations of water and osmotic potentials. These methods are arranged into eleven chapters which are well-balanced containing both the theoretical and practical data. It is hoped that the other important methods e.g. measurements of the photosynthetic rate, photorespiration rate, transpiration rate, long-distance transport, and the growth characteristics will appear in the second volume. The whole manual is very readable, the text is supplemented with 45 instructive figures and 14 tables. It is a book that might stimulate the interest of students in plant physiology.