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BOOK REVIEW

LÖVE, A., LÖVE, F: **Plant Chromosomes.** — J. Cramer, Lehre 1975. XV + 184 pp., 29 Figs. DM 36.00.

Plant chromosomes are today observed and studied extensively, both their theoretical aspects and practical application in agriculture. The Löve's — well known specialists in this scientific field — have summarized their many years' experiences in a slender book whose importance, however, by far surpasses its scope. The volume is not only of a high professional standard, but it contains information and instructions so well selected that they cover the common requirements of workers in this branch. A beginner will especially appreciate minor advices which will help him to avoid errors which he might commit and then correct only after a long investigation work.

The book is divided into six parts. The first part contains theoretical principles necessary for understanding the events studied. In addition to normal mitosis and meiosis, some special problems are explained, which are connected with deviations in the number or form of chromosomes, or concern pollen mitosis.

The second part deals with the materials that can be used for chromosome studies. Besides traditional objects, also less known or neglected materials such as cork cambium, more strictly the cells derived from it, corollas in flower buds and staminal hairs are discussed.

The basic laboratory equipment is the topic of the third part. A chapter on experimental records, in which directions for sample labelling are also presented, demonstrates in what detail the subject is treated. It makes a beginner to choose a certain system so as to avoid confusion or loss of the material.

The fourth part describes the technique of observation, from finding a suitable metaphase plate to plotting and counting chromosomes and measurement of pollen grains and stomata.

The fifth part deals with the preparation of slides, including both squashing and sectioning techniques and procedures used for making the preparations semipermanent or permanent. Instructions of how to preserve the pollen, what to do when the fixative is spilled or evaporates and the material dries up, and others that are not commonly found in handbooks of this type, are also comprised.

The short sixth part gives suggestions to those who want publish the results of their studies.

The text is complemented by two appendices. The first contains adequately assorted recipes and practical comments on their use, and the second the references arranged according to their faetological meaning.

Instructive text-figures facilitate a better understanding of the facts presented. The authors obviously presume that the readers will amplify their knowledge by further study, but it is likely that for many of them the book will be the only source of information, at least for some time. Therefore, it would be advisable to complement the second edition with photomicrographs to show the difference between a microscopic image and a drawing.

The book is well presented. Its format and set-up make it convenient for use in laboratory and field work.

The few examples mentioned above demonstrate the usefulness of the book, its very convenient conception and adequate selection and arrangement of the facts described. I am sure it will arouse much interest and will serve as a basic manual to many workers, if currently available.

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