

- PAPPENHEIMER, A. M. JR., OLSNES, S., HARPER, A. A.: Lectins from *Abrus precatorius* and *Ricinus communis*. I. Immunochemical relationships between toxins and agglutinins. — *J. Immunol.* **113** : 835 to 841, 1974.
- PUSZTAI, A., STEWARD, J. C.: Isolectins of *Phaseolus vulgaris*. Physicochemical studies. — *Biochim. biophys. Acta* **536** : 38–49, 1978.
- REISFELD, R. A., LEWIS, U. J., WILLIAMS, D. E.: Disk electrophoresis of basic proteins and peptides on polyacrylamide gels. — *Nature* **195** : 281–283, 1962.
- RICE, R. H.: Wheat germ agglutinin. Evidence for a genetic basis of multiple forms. — *Biochim. biophys. Acta* **444** : 175–180, 1976.
- ROUGÉ, P.: Interactions entre les protéines du serum humain normal et les hémagglutinines des graines de Pois. — *Comp. rend. Acad. Sci. Paris (Sér. D)* **283** : 1823–1825, 1976.
- TOMS, G. C., WESTERN, A.: Phytohaemagglutinins. — In: ARBORNE, J. B., BOULTER, D., TURNER, B. L. (ed.): *Chemotaxonomy of Leguminosae*. Pp. 367–456. Academic Press, New York 1971.
- WALHNELDT, T. V.: Sodium dodecyl sulfate in protein. — *BioSystems* **6** : 167–187, 1975.
- WEBER, K., OSBORNE, M.: The reliability of molecular weight determinations by dodecyl sulfate polyacrylamide gel electrophoresis. — *J. biol. Chem.* **244** : 4406–4412, 1969.
- XAVIER FILHO, J., MOREIRA, R. A.: Visualization of proteinase inhibitors in SDS-polyacrylamide gels. — *Anal. Biochem.* **84** : 296–303, 1978.

Figs. 4 to 6 at the end of the issue.

BOOK REVIEW

SHIBAOKA, H., FURUYA, M., KATSUMI, M., TAKIMOTO, A. (ed.): *CONTROLLING FACTORS IN PLANT DEVELOPMENT*. — Special Issue of the Botanical Magazine, Tokyo No. 1. Tokyo 1978. 277 pp.

Among the many publications aimed at bringing the reader up to date in the main features of plant development the book being reviewed can, in my opinion, best fulfill the task. This is achieved by combining the illustrative survey of the subject with the present status of the research which is often based on authors' personal experience. Thus, the book is both a review and a highly personal account.

The volume is formally divided into four major parts (with some inevitable overlaps) and 14 chapters: I. Major Developmental Stages in Plant Life-Determination in Plant Development (Wareing) and Senescence (Thimann), II. Metabolic Control-Regulation of Cell Differentiation in Slime Mold Development (Takeuchi *et al.*), Sexual Cell Agglutination in *Saccharomyces cerevisiae* (Yanagishima), III. Hormonal Control — Auxin Induced Cell Wall Loosening (Masuda), Auxin, H⁺-Excretion and Cell Elongation (Cleland and Rayle), Gibberellin Control of Cell Elongation in Cucumber Hypocotyl Sections (Katsumi and Kazama), Some Aspects of Regulation of Flowering: Role of Correlative Factors in Photoperiodic Plants (Miginia), IV. Environmental Control — Photoperiodic Flowering in *Lemna gibba* G3: Time Measurement (Oota and Nakashima), Pattern Specification and Realization in Photomorphogenesis (Mohr), Photocontrol of Developmental Processes in Fern Gametophytes (Furuya), Leaf Movements and the Analysis of Plant Behavior (Galston), Gravity-Sensing Guidance Mechanisms in Roots and Shoots (Wilkins).

The choice of the topics represents fairly well the range of models we use in this field (from slime mold and yeasts to cells, organs and entire plants) as well as the different levels of control mechanisms. The authors show on many occasions how the results gained with a relatively simple object can be used to tackle more complex developmental events, *e.g.* the study on the mechanisms of timing the leaf movement bears some relationship to timing plant flowering. All the contributions are excellent. However, the authors differ in their approach: some, as *e.g.* Mohr and Wareing, provide us with a comprehensive recapitulation of their ideas we have already been acquainted with, others bring about a complete history of the development of a given problem (*e.g.* the article on a response of aleurone layer to GAs). There are also authors who succeeded in bringing new ideas and reevaluating experimental material in the framework of a traditional problem (*e.g.* Miginia's article on correlative effects in flowering).

This book is an obligatory reading for those dealing with physiology of plant development. It also contains new ideas for general biologists.

J. KREKULE (Praha)