

- MANURUNG, R. M.: Environment and growth substances affecting gibberellic acid-induced coning of *Thuja plicata* D. Don and flowering of *Tabebuia pallida* LINDL. — Ph. D. Thesis, University of Aberdeen, 1982.
- PHARIS, R. P., KUO, C. G.: Physiology of gibberellins in conifers. — Can. J. Forest Res. **7** : 299 to 325, 1977.
- PHILIPSON, J. J.: The role of gibberellin A₄/7, heat and drought in the induction of flowering in Sitka spruce. — J. exp. Bot. **34** : 291—302, 1983.
- PURITCH, G. S.: Cone production in conifers. — Can. Forest. Serv. Inf. Rep. BC-X-65, 1972.
- ROSS, S. D., GREENWOOD, M. S.: Promotion of flowering in the *Pinaceae* by gibberellins. II Grafts of mature and immature *Pinus taeda*. — Physiol. Plant. **45** : 207—210, 1979.

BOOK REVIEWS

FRIEDMAN, M. (ed.): NUTRITIONAL AND TOXICOLOGICAL ASPECTS OF FOOD SAFETY. Advances in Experimental Medicine and Biology, Vol. 177. — Plenum Press, New York — London 1984. 584 pp. \$ 79.50.

Considerable effort has been put forth in elucidating those factors in foods that may constitute a hazard to man. The objectives of this publication, containing the proceedings of a symposium held in San Francisco, 1982, is to discuss the possible adverse effects of food toxicants and anti-nutrients, and various approaches of inactivating or eliminating the toxic food ingredients from our diet. The readers of *Biologia Plantarum* will be mainly interested in the papers dealing with food toxicants of plant origin. Detailed studies cover the action of enzyme inhibitors, especially protein, amylase and lipase ones, further lecithins, polyphenol oxidases *etc.* Very interesting are papers on the genotoxic effects of plant flavonoids and on quercetin mutagenicity and, on the other hand, on the antimutagenic activity of plant phenolics which proved to minimize the activity of various alkylating agents. Data on oxidizing enzymes, such as polyphenol oxidase, that inactivate the mutagenic effects of quercetin, on the anticarcinogenic effects of plant fibers and the defence against the aflatoxin carcinogenesis, are also presented. Further papers inform on the safety of megavitamin therapy, sources of N-nitrosamine contamination in foods, interaction of diet and immunity, mutagens in cooked food, sulphhydryl groups and food safety and other topics.

This volume, which includes much as yet unpublished material, will be indispensable to all scientists engaged in studying the effects of food toxicants.

T. GICHNER (*Praha*)

MILMAN, H. A., SELL, S.: APPLICATION OF BIOLOGICAL MARKERS TO CARCINOGEN TESTING. — Plenum Press, New York — London 1983. 516 pp. US \$ 69.50.

The 29th volume of Environmental Science Research, based on a Symposium held in Bethesda, Maryland, in 1982 reviews biological changes correlatable with carcinogenic processes and discusses the use of short- and long-term bioassays for detecting the genotoxic effects of environmental agents. The introductory papers deal with *in vivo* (mainly rodent models) and *in vitro* bioassays (*Salmonella*/microsome test, animal and human cell cultures *etc.*). Although *in vivo* animal assays provide definitive end-points such as tissue pathology, *in vitro* tests serve as invaluable preliminary tools. The core of the publication focuses on correlating biochemical and immunological changes with the carcinogenic process. Included are studies on enzyme analysis in transformed cells, *e.g.* enzymes of nucleic acid metabolism, carbohydrate metabolizing enzymes, modified nucleosides of ribonucleic acid *etc.*, further studies on the use of monoclonal antibodies directed to chemically modified DNA and on the influence of chromatin structure on the binding of chemical agents to the genome. Of broad interest will be papers of the last sessions covering the use of repair deficient cells for the identification of genotoxic compounds, thymine modifications in DNA as markers of radiation exposure, aberrant methylation of DNA as an effect of cytotoxic agents *etc.* The publication is concluded by a round-table discussion on the use of biological markers in the identification of genotoxic compounds and by abstracts of 11 poster presentations.

The volume will prove useful to scientists interested in carcinogenesis and genetic toxicology.

J. VELEMÍNSKÝ (*Praha*)