

- NEČÁSEK, J., DUSBÁBKOVÁ, J., PEKÁRKOVÁ-TRONÍČKOVÁ, E.: Whole plants regeneration from crown galls of *Lycopersicon esculentum*. — Biol. Plant. **30** : 1–8, 1988.
- OOMS, G., BAINS, A., KARP, A., TWELL, D., WILCOX, E.: Genetic manipulation in cultivars of oilseed rape (*Brassica napus*) using *Agrobacterium*. — Theor. appl. Genet. **71** : 325–329, 1985.
- PAVINGEROVÁ, D., ONDŘEJ, M., MATOUŠEK, J.: Analysis of progeny of *Arabidopsis thaliana* plants regenerated from tumors. — Z. Pflanzenphysiol. **112** : 427–433, 1983.
- PUA, E. C., MENHARAPALTA, A., NAGY, F., CHUA, N. H.: Transgenic plants of *Brassica napus*. — Bio/Technol. **5** : 815–818, 1987.
- RIKER, A. J., BANFIELD, B. M., WRIGHT, W. H., KEITT, E. W., SAGAN, E. H.: Studies on infectious hairy roots of nursery apple trees. — J. agr. Res. **41** : 507–540, 1930.
- TAYLOR, B., POWELL, A.: Isolation of plant DNA and RNA. — Focus **4** : 4–6, 1982.
- TURGEON, R., WOOD, H. N., BRAUN, A. C.: Studies on the recovery of crown gall tumor cells. — Proc. nat. Acad. Sci. USA **73** : 3562–3564, 1976.
- WHITE, F. F., GHIDOSHI, G., GORDON, M. P., NESTER, E. W.: Tumor induction by *Agrobacterium rhizogenes* involves the transfer of plasmid DNA to the plant genome. — Proc. nat. Acad. Sci. USA **79** : 3193–3197, 1982.
- WHITE, F. F., TAYLOR, B. H., HUFMAN, G. A., GORDON, M. P., NESTER, E. W.: Molecular and genetic analysis of the transformed regions of DNA of the root inducing plasmid of *Agrobacterium rhizogenes*. — J. Bacteriol. **164** : 33–44, 1985.
- WULLEMS, G. J., MOLENDIJK, L., OOMS, G., SCHILPEROORT, R. A.: Retention of tumor markers in F₁ progeny plants from *in vitro* induced octopine and nopaline tumor tissues. — Cell **27** : 719–727, 1981.

Fig. 1 at the end of the issue.

BOOK REVIEW

ARCHER, R. R.: GROWTH STRESSES AND STRAINS IN TREES. — Springer Verlag, Berlin—Heidelberg—New York—London—Paris—Tokyo 1987. 240 pp., 115 figs. Hardcover DM 98.—

The third book of the Springer series on wood science has been devoted to mechanical stresses and strains which develop in cambial layers of the tree stem, during its growth.

The growth stresses in trees present some special problems, which are of interest to a wide range of specialists. For example, tree physiologists are interested in questions, such as the relation of mechanical stress to stem tapering and the role of reaction wood and gravity forces in determining the form of tree crown. Relations between thinning and wood quality are interesting to foresters. Wood properties are correlated with growth stress levels which are, in turn, significantly changed by thinning. And finally, wood technologists are interested in the relation of residual growth stress gradients in green logs to the dimensional quality of sawn timber.

The book is divided into six topics and five appendices. In my opinion, for tree physiologists are interesting and useful the first three chapters. In these parts all information about “physiologically attractive topics” of growth stresses are involved (An introduction to growth stresses; On the measurement and interpretation of surface growth strains; Mechanisms for the generation of surface strains). In these chapters the experimental results are interpreted by means of comparatively simple models of mechanical actions.

The next chapters are devoted to technically more detailed models of wood, which is a mechanically complex material. A level of mathematical description of the problems under study is adequate to a wide range of biologists and wood mechanics. The book provides a solid basis for understanding growth stresses and strains in trees. A combination of biological and mechanical approaches to the problems studied is of great use.

Archer's book can be recommended to tree physiologists, foresters and wood technologists.

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