Collins, H.A., Edwards, G.S.: **Plant Cell Culture.** - Bios Scientific Publishers, Oxford 1998. 158 pp. GBP 18.95. ISBN 1-872748-47-3.

Plant tissue culture is fundamental to a wide range of experimental studies of plant function and the modification of plant form and function to meet the needs of modern agriculture, horticulture and forestry. Who would like to know the basic information about culturing and using of plant tissue culture can find it in this book. Therefore it is ideal for students and first time users. It is an introductory guide to plant cell culture techniques with a sufficient detail to apply a technique without recourse to another text. In addition, it includes advice on further reading for those who wish to pursue the subject in more detail. An important feature of the book is the inclusion of both theoretical and practical information to give a balanced description of the subject.

The contents is divided in two great parts. The first one "Basic principles and methods" describes basic equipment, aseptic techniques, preparation of media, initiation of callus cultures, growth of callus and cell suspension cultures, and regeneration of tissue cultures. The second part deals with different applications of tissue cultures: haploid cultures, protoplast cultures, preservation and cryopreservation of germplasm, somaclonal variation and selection of somaclones, cultures used for production of secondary metabolites, micropropagation techniques in horticulture and for crop improvement, and plant transformation with *Agrobacterium tumefaciens*.

The readable text is completed with many well arranged figures and photographs.

R. PODLIPNÁ (*Praha*)

Sitte, P., Ziegler, H., Ehrendorfer, F., Bresinsky, A.: **Lehrbuch der Botanik für Hochschulen.** Begründet von E. Strasburger, F. Noll, H. Schenck, A.F.W. Schimper. 34th Edition. - Gustav Fischer Verlag, Stuttgart - Jena - Lübeck - Ulm 1998. XIX+1007 pp. DEM 138.00. ISBN 3-437-25500-2. [In German].

The 34th edition of the well-known textbook of botany for universities which was founded by E. Strasburger and co-workers in 1894 and translated several times into different languages, has appeared in 1998. Since the 33th edition has been published seven years ago, and meanwhile our knowledge in botany has increased, too. Even if the partition into the main parts, *i.e.*, Morphology, Physiology, Evolution and Taxonomy, and Geobotany was maintained, the content of the textbook has been basically rewritten, updated, completed and renewed. Predominantly new molecular-biological aspects in the morphological and the physiological parts appeared and were presented on new perfect pictures using new microscopic and other techniques. The same is true also for the part Evolution and Taxonomy where the new methods for DNA analysis led to new results and therefore, to the revision of the text. In the Geobotany part above all the problem of biodiversity was worked out newly as the basis for biological resources and biosphere maintenance.

Not only the content but also the design of the textbook was changed: the larger size, new design, new actualized typography, more frequent usage of red colour in the text, *e.g.*, in all headings. All this contributed to a better, quicker, and more confortable orientation in the text. The volume contains a voluminous list of basic literature (pp. 927-951), a combined plant and subject index (pp. 953-1003), several tables of units, *etc.*

This perfect, thoroughly "upgraded" textbook will surely again help to educate thousands of students in botany in German-speaking countries and will be a helpful aid for those who wanted to update their knowledge in botany.

I. TICHÁ (*Praha*)