

Bonga, J.M., Von Aderkas, P.: *In Vitro Culture of Trees*. (Forestry Sciences. Volume 38.) - Kluwer Academic Publishers, Dordrecht - Boston - London 1992. 236 pp. US \$ 69.50.

Hardly a week goes by without one or two publications concerning tissue cultures and there are many books or reviews that deal with them. However, because they are primarily concerned with herbaceous crops, they often do not sufficiently discuss the problems that specifically apply to the tissue culture of tree species. A review of the current status of the tree tissue culture is now very useful because for many tree species the culture technology has advanced to the point where commercial application is possible.

After a short Introduction, the second chapter deals with laboratory organization and equipment. Because woody plants are often very difficult to culture, many different types of media have been employed. Therefore Chapter 3 provides information regarding the physiological functions of the various media components. Other important aspect of successful *in vitro* culture is selection of the right explant at proper stage of development and these tasks are considered in Chapter 4. The most important practical use of tissue cultures is to use them for the micropropagation and so the largest Chapter 5 deals with the different types and stages of micropropagation (the initiation of cultures, the handling of cultures after initiation, the acclimation to *ex vitro* culture, the transfer to soil and the possibilities for industrial production). The Chapter 6 is devoted to special cultures and the main attention is given to the protoplast preparation, culture and use. The following, small chapters are focused on the production of secondary metabolites, the screening for disease resistance, the nitrogen fixation and the storage of cultures. The last chapter concerns the genetic modifications that can occur during micropropagation and the genetic engineering.

The readable text is accompanied by many figures (including splendid photographs). Although this book cannot provide a complete coverage of this field, the reader can find further extension of knowledge in almost 1 000 references. This book excellently connects the theoretical and practical approaches and so it will be helpful to everybody interested in tree tissue cultures.

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