

Kurata, K., Kozai, T. (ed.): **Transplant Production Systems** (Proceedings of the International Symposium on Transplant Production Systems, Yokohama, Japan, 21 - 26 July 1992). - Kluwer Academic Publishers, Dordrecht - Boston - London 1992. 335 pp.

For many reasons transplant production systems are now attracting much attention from researchers, agricultural specialists, or forestry authorities, landscape ecologists and economists. *In vitro* multiplication techniques adopted to or developed especially for mass "industrial scale up" production are expected to aid substantially the progress in solving specific tasks and serious problems of the global environmental changes, agricultural and horticultural productions as well as the safe application of plant biotechnology. For example reforestation, afforestation, and total increase of agricultural production with a low negative impact on nature are of major importance. Other reasons for the interest in transplant production are related to the growing demand for high quality end products (disease-free plants), costs of labour and facilities, specialization of labour in plant production and advancements in biotechnology.

The book "Transplant Production Systems" was published by Kluwer Academic Publishers, Dordrecht, The Netherlands immediately following The International Symposium on Transplant Production Systems held in Yokohama, Japan on July 21 - 26, 1992. The editors, well known specialists in plant system robotics and micropropagation Kenji Kurata and Toyoki Kozai have compiled its content based on most of the proceeding's presentations in the special sessions. These cover various methods of plant multiplication mainly to do with *in vitro* systems, low-temperature storage and other practices commonly used or recently developed in leading institutes and laboratories located in different countries all over the world (e.g. USA, Canada, New Zealand, Japan, Europe). In parallel to the common plant multiplication methods, numerous examples of micropropagation using vegetative propagules, organogenesis and somatic embryogenesis are well documented. The main theme of the book, however, is devoted to the system analysis, modelling and control of culture environment, automated micropropagation, transplant production robots and image analysis. All the topics are described in an intelligible and detailed way. Readers who are specialists in plant production systems, researchers, postgraduates and university students will find this book very useful indeed.

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