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Voir les figures 1 à 3 à la fin de cette issue.

BOOK REVIEW

PAIS, M. S. S., MAVITUNA, F., NOVAIS, J. M. (ed.): *PLANT CELL BIOTECHNOLOGY. Proceedings of the NATO Advanced Study Institute on Plant Cell Biotechnology held in Albufeira, Portugal, 1987.* – Springer Verlag, Berlin-Heidelberg-New York-London-Paris-Tokyo 1988. Hard cover DM 298.–.

The volume contains 48 contributions covering a wide range of topics in plant cell biotechnology. The focus is on its application in crop production and plant breeding, plant genetic engineering, biochemical and technical aspects of biotransformation and on the production of fine chemicals by plant cell and tissue cultures. Especially well documented are the problems of cell culture in *Graminae*, various aspects of secondary metabolism in cell culture and models of large-scale cultivation of plant cells. Some of the contributions are of a pioneering character. I appreciate the contribution on physiological and biochemical aspects of photoautotrophism in cell culture (Hüsemann). Such a system, demonstrated on *Chenopodium rubrum*, brings about new possibilities in testing xenobiotics, especially those (as some herbicides) discriminating between photosynthesizing and non-photosynthesizing cells. It also enables the analysis of chloroplast associated pathway for secondary metabolism and provides possibilities (?) for selection of photosynthetic parameters.

Of general importance is the paper on cloning and cell sorter by Bariaud-Fontanel *et al.*, which describes studies on heterogeneity within cell culture, manifested through different cell cloning processes. There are wise and critical reviews on Prospects in plant biotechnologies (Vasil) and on Future trends in biotechnology (Staba), to mention at least two of them.

The book provides a rather realistic evaluation of the field so far plagued by premature and unsubstantiated claims. I fully agree with the statement made on several occasions that the limits of further progress in this area are the limits of our knowledge in plant morphogenesis, genome organization etc.

The book is a reliable source of current literature which is cited in a non-abridged version. Certain heterogeneity of contributions with regard to their set-up and topics is an inevitable attribute of courses of this kind. It is compensated by certainty that everyone finds a piece of valuable information.

Summarizing: the book is a valuable contribution to the present boom in biotechnologies. It provides the student in biotechnology with necessary overview of the field and helps him in choosing the optimal strategy on research and application.

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