Bajaj, Y.P.S. (ed.): **Plant Protoplasts and Genetic Engineering VI.** (Biotechnology in Agriculture and Forestry 34). - Springer-Verlag, Berlin - Heidelberg - New York 1995. 308 pp. DM 348.00. ISBN 3-540-58931-7.

This is already the 34 volume of the series Biotechnology in Agriculture and Forestry, which started to appear from 1986. It shows how rapidly the problematics of plant biotechnology develops. Out of this series, this is the sixth volume called Plant Protoplasts and Gene Engineering. The innovation of similar title is not exception in this series. There already have been eight volumes of Medical and Aromatic Plants, four volumes of High-Tech and Micropropagation and other innovated volumes. The volume was edited by Professor Y.P.S. Bajaj and most of contributions are from India. The volume demonstrates current quick development especially of plant transgenosis. Out of 27 articles, 13 are dealing with plant protoplasts and 14 with plant transformation, but while protoplast experiments are described on 130 pages, those with transformation cover 177 pages. This volume deals with two topics exclusively. The first one is the regeneration of plants from protoplasts and the second one is the transformation of new plant species, either by *Agrobacterium tumefaciens* or by direct transformation merthods. Regeneration of plants from protoplasts of several new genera and species is first described. These genera belong to crop plants (*Arachis hypogea, Diospyros* sp., *Gossypium* sp., *Trititrygia* sp.), ornametal plants (*Dianthus* sp., *Gentiana* sp., *Hemerocalis* sp., *Lonicera* sp., *Platanus orientalis*), traditional medicinal plants, mostly Asian (*Bupleurum scorzonerifolium, Saposhnikovia divaricata, Levisticum sp., Solanum khasianum, S. laciniatum)* and wild species with useful resistance genes (*Capsella bursa pastoris*). Transgenosis by *A. tumefaciens* and regeneration of transgenic plants has been achieved in *Dianthus caryophillus, Fagopyrum esculentum, Glycyrrhiza uralensis, Physalis sp., Prunus armeniaca, Prunus persica, Solanum muricatum* and *Spinacia oleracea*. Direct transformation has been first described in *Arachis hypogaea, Dendrobium* sp., *Festuca arundiaca, Musa* sp. and *Tulipa* sp.

This volume enlarges considerably the number of species which are prone to transformation, as well as those with worked out methods for regeneration of plants from protoplasts. It gives hope that both these attitudes will be useful for all plant species. This book is useful for plant biologists using protoplasts and those working on transformation.

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