

Tepfer, M., Balázs, E. (ed.): **Virus-Resistant Transgenic Plants: Potential Ecological Impact.** - Springer-Verlag, Berlin - Heidelberg, INRA, Paris 1997. 126 pp. DM 98.00. ISBN 3-540-63257-3.

The concept of pathogen-derived resistance has proved to be a highly efficient approach to obtain virus-resistant plants. However, it is also essential to evaluate the potential risks associated with this technology. The workshop on "Potential ecological impact of transgenic plants expressing viral sequences", held at the Agricultural Biotechnology Center in Hungary on 24 - 26 April 1997, covered all these important points. The book was evolved from proceedings of the OECD Co-operative Research Programme Workshop.

It starts with the chapter devoted to virus evolution, especially principal mechanisms generating new viral species with novel host ranges. Because RNA viruses and viroids may exchange genetic material as a result of RNA recombination, systematic search for recombination events in plant viruses and viroids represents one of the key issues regarding the biosafety of transgenic plants, as it is emphasised in the next chapter. Following chapters

comprise mechanisms of homologous and nonhomologous recombination of RNA viruses, studies on RNA recombination *in vivo* and *in vitro*, significance of RNA recombination in capsid protein-mediated virus-resistant transgenic plants, potential deleterious effects of satellite RNAs associated with cucumber mosaic virus, and sexual transmission of virus resistance genes to potentially weedy relatives, as well as the problem of mixed infections including the synergy of virus accumulation and the risk of assessment of transgenic plants expressing the coat protein gene. Final chapters discuss ecological impact of transgenic virus-resistance in crop, weed, and wild plant populations and risk assessment of gene flow associated with release of virus- resistant transgenic crop plants.

The book can certainly be recommended not only to plant virologists but also to students in biology as additional complementary reading.

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