

Fitter, A.H., Stribley, D.P.: **Plant-Microbe Symbiosis: Molecular Approaches**. - Cambridge University Press, Cambridge - New York - Oakleigh 1996. 197 pp. £ 19.95 (US\$ 29.95). ISBN 0-521-58718-2 (paperback).

The book—reprinted from *The New Phytologist* **133**, 1996—represents proceedings of the First New Phytologist Symposium, held at the University of York 15 - 17 November 1995. Seventeen contributions prepared by 69 mostly well known scientists were selected of those that were invited to be presented at the symposium. The papers include consideration of both plant-parasite interactions and rhizobium and mycorrhizal associations. The questions asked range from the nature of the molecular signalling that occurs between the partners, to the role of biological diversity in ecosystem function. Microorganisms could affect plant growth and health through associations. The symbiotic relationships range from the clearly beneficial, *e.g.* mycorrhizas and rhizobial infections that supplement plant nutrition, to the clearly harmful, *e.g.* pathogenic infections that reduce crop yield or destroy forests. Many of the microorganisms are obligate symbionts. Through modern molecular approaches it is possible to understand the interactions of individual members of those communities with plants.

By understanding phenomena such as systemic acquired resistance and resistance/avirulence gene systems, are not only open opportunities in disease control that may be more sustainable than current techniques, but also provide a surer foundation for explaining events in pathogenesis and mycorrhizal development. Some of informations published in this book can be used to develop hypothesis about the co evolution of the partners, *i.e.* plant-microbe, the diversity of the function of the association, and their ecological behaviour. The collected papers illustrate the molecular techniques that are recently available, and describe those being developed for the future. They point the way to a future in which molecular biology and genetically modified organisms might even be used to manage symbioses.

The reader can feel that the above mentioned conference was stimulating and exciting. Interchanges between researches who have similar approaches to different systems and vice versa, were revealing of new directions and encouraging that the rate of progress in investigating these complex biological systems will accelerate. The papers presented may encourage a multidisciplinary approach to the study of plant-microbe interactions.

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