collection of 12 chapters, each of which is written by experts in the field. The book starts with two broad chapters that set the scene on the nature of the problem. This is then followed by 10 chapters which focus on the use of INM in different regions of the world (e.g. North America, South Asia, Europe, South America, Sub-Saharan Africa). All of the chapters are very well written, can be read in isolation and contain up-to-date literature. In its entirety, the book brings together more than 1300 references on INM strategies and so provides an excellent synthesis of published material. The 'Research gaps and future needs' sections at the end of the chapters are also an indication of the level of thought given by the authors. The book contains lots of really useful figures and tables that highlight the key points from each chapter and will be very useful to undergraduate and postgraduate students as well as to experienced research scientists. The global perspective makes it particularly useful in this respect, as there is something for everyone in the book. I can thoroughly recommend this book as a worthwhile purchase.

Davey Jones

Microbial Ecology of Aerial Plant Surfaces. Edited by M. J. Bailey, A. K. Lilley, T. M. Timms-Wilson and P. T. N. Spencer-Phillips. Wallingford, UK: CAB International (2006), pp. 315, £75.00. ISBN-13: 978-1-84593-061-5. doi:10.1017/S0014479707005546

This book is a welcome addition to the literature on the phyllosphere and it covers a wide range of modern methodologies for the study of microorganisms residing on and inside aerial plant organs. Emphasis throughout the book is given to the ecology of bacterial populations, though reference is made to tropical fungal endophytes and fungi used in biological control of plant pathogens. The book is edited to a high standard (I noticed only a few typographical errors) but in my view suffers from the inevitable problem of creating a textbook from the participants who attended a meeting. However, the first chapter by S. Lindow makes a brave attempt to unify the diverse chapters that follow and makes perceptive comments on the gaps left by current work. The editors could perhaps have overcome some of these difficulties by making more cross-referencing between chapters (e.g. quorum sensing is mentioned in several chapters). The colour plates are excellent, but the monochrome photographs are disappointing.

The text deals with the increasing knowledge about the diversity of bacterial populations and their assemblages at small scales on plant surfaces and the communication between cells through exchange of genetic material or signal molecules. It also covers the production of bacterial biofilms and their potential roles in survival and success of populations of epiphytes in potentially hostile microhabitats. These earlier chapters help the reader to understand the profound difficulties encountered in the design and development of consistently effective biological control agents for plant pathogens.

Brian Williamson

Modeling Phosphorus in the Environment. Edited by D. E. Radcliffe and L. Cabrera. Boca Raton, Fl, USA: CRC Press/Taylor and Francis Group (2007), pp. 420, £74.99. ISBN 0-8493-3777-1. doi:10.1017/S0014479707005558

Modeling Phosphorus in the Environment provides a comprehensive coverage of how the processes controlling the sources, mobilization and transport of phosphorus in the rural environment are modelled. Section 1 provides an introduction to modelling the processes controlling phosphorus loss at the field and catchment scales and the approaches taken in commonly used field and catchment scale water quality models. Section 2 includes chapters from developers and users of widely used watershed water quality models. These descriptions of the theory and formulations provide a handy reference for prospective and current model users. Where this section could be found lacking is in the omission of a more critical discussion on the limitations of these models. The final section covers the development of phosphorus indices and challenges to their implementation. The book concludes with valuable chapters discussing the use and limitations of models in the evaluation of best management practices and the challenges in collecting data to develop and test watershed scale water quality models. Overall, this book provides an important review of how phosphorus losses from rural catchments are modelled at the field to catchment scale. The book correctly concludes by highlighting the critical need for long-term nested monitoring data which are required for future advances in the modelling of phosphorus.