authors have suggested 'looks' as an attribute to evaluate and quantify biodiversity (chart 3, page 31), it is my sincere wish that this brief review will serve as an attribute to caution all readers not to go anywhere near the book.

R. J. RANJIT DANIELS

Care Earth, No 5, 21st Street,
Thillaiganganagar,
Chennai 600 061, India
e-mail: careearth@usa.net

Arbuscular Mycorrhizae: Interactions in plants, rhizosphere and soils. A. K. Sharma and B. N. Johri (eds). Oxford and IBH Publishing Co. Pvt. Ltd., 66, Janpath Road, New Delhi 110 001. 2002. 311 pp. Price not stated.

Mycorrhiza literally means 'fungus root', and by far the most common mycorrhizal association is the arbuscular type. The prodigious research made in the last three decades clearly established that arbuscular mycorrhizal (AM) fungi improve plant growth. The growth improvement was attributed to enhanced mineral uptake (especially P, Zn and Cu), biological control of root pathogens, synergistic interaction with beneficial soil microorganisms, hormone production and drought resistance of the various microorganisms colonizing the rhizosphere. AM fungi occupy a unique ecological position as they are partly inside the host and partly outside the host, i.e.; in the rhizosphere and soil. Thus the title of the book 'Arbuscular mycorrhizae: Interactions in plants, rhizosphere and soils' is very appropriate.

The book has three sections and each section comprises 4 chapters. The first section deals with interactions of AM fungi in the rhizosphere. The four chapters in this section contributed by different authors bring out the interaction between AM fungi and beneficial organisms occurring in rhizosphere. This section brings out clearly the complex nature of mycorhizosphere and the possibility of modifying it through judicial combinations of microorganisms interacting with AM fungi in order to enhance plant growth.

Section 2 deals with interactions of AM fungi in soil. The chapters in this section deal with the effect of environment on AM fungi, the importance of these fungi in facilitating plant growth under adverse soil conditions, and their role in improving soil structure especially in disturbed soils such as fallows, drains, mined and eroded soils.

Section 3 deals with interactions of AM fungi with plants. The first and second chapters deal with the molecular basis of symbiosis between plants and AM fungi. The third chapter brings out the up-to-date information on the specificity and compatibility between the two symbionts and the last chapter deals with the physiology of nutrient uptake by AM fungi.

The authors of various chapters have covered the subject comprehensively with current information. References given at the end of each chapter add to the value of the book. The efforts made by the editors to add 'Section Summary' before each section is commendable. Chapter 8 and 9 do not give conclusions, though chapter 8 provides it as 'Future thrust'. However, this does not detract from the value of the book except in not maintaining uniformity in the presentation.

All the authors and the editors must be congratulated for bringing out an extremely useful publication. This book should be a-must to students, teachers and researchers in the disciplines of Microbiology, Plant Pathology, Soil Science, Environmental Science and Agronomy. It will be an asset to all libraries of universities, colleges and research institutions.

D. J. BAGYARAJ

Department of Ag-Microbiology,
University of Agricultural Sciences,
GKVK Campus,
Bangalore 560 065, India
e-mail: djbagyaraj@vsnl.com