

contemporary development debate by bringing out this collection of Gandhian principles in the areas of environment and development. At least in vocabulary, the Gandhian approach is being recapitulated in the declarations of the recent UN Conferences. If a stripe review is undertaken of the declarations made at the Children's Summit in New York (1990), the UN Conference on Environment and Development, Rio de Janeiro (1992), the Conference on Human Rights, Vienna (1993), the Conference on Population and Development, Cairo (1994), the UN Social Summit, Copenhagen (1995) and the Fourth World Conference on Women to be held in Beijing in September 1995, we will find a striking resemblance between many of the statements contained in Khoshoo's book and those embodied in the international declarations. Converting the Gandhian development strategies and value systems from theory into practice is thus an idea whose time has come.

M. S. SWAMINATHAN

*M. S. Swaminathan Research Foundation,
3rd Cross Street,
Taramani Institutional Area,
Madras 600 113, India.*

Recent Trends in Aerobiology, Allergy and Immunology. A collection of Plenary Lectures and Contributory Articles. Ed. S. N. Agashe. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. 1994. 315 pp. Price. Rs 750.

Aerobiology is the study of airborne particles of biological origin, their sources, liberation, deposition and impact on agriculture/human health. The presence of these particles in the atmosphere is influenced by environmental and climatic conditions. The emphasis of aerobiology has shifted from one aspect to another. During the last few decades, aerobiology has assumed importance because of its role in diagnosis of allergic disorders. The role of pollen in allergic rhinitis was shown by Charles Blackley as early as 1873. Since then, a lot of work has gone in to show the relationship between aerobiology and allergology. Various systematic studies were conducted on the

presence of pollens and fungal spores in the atmosphere and their effect on human health. The book under review consists mainly of papers presented at the 5th International Aerobiology Conference held at Bangalore in August 1994. The 20 topics cover diverse areas, mainly of aerobiology related to allergy, except for a few topics dealing with the usefulness of aerobiology in forensic sciences, solar radiation, polymorphic light eruption, and paradox and placebo of medicine in the 21st century.

Brown in his article has brought out the historical relationship between aerobiology and allergy, while John Lacey in his article has emphasized the other aspects of aerobiology and given various priorities for aerobiological research. Other articles on pollen calendar and the environmental influences on the allergenicity of pollens give a lot of information in this area. A few articles on fungal spores, including alternaria, and their effect on human health and foods are worth reading. The pollen allergy in India has been dealt with in great detail. Also there is an interesting article on latex allergy which warns of the severe risk for workers in the manufacture of latex products. The house dust mite is a known source of allergen which has been shown to be a principal factor responsible for early morning asthmatic attacks. The book has two articles on this topic: one on the current studies of research on dust mite in India and the other on the use of mite allergens for immunotherapy. Until a few years ago, insects were not considered as major allergenic source. However, during the last few years insects as aeroallergens have been conclusively established and the review of this topic is very informative. The book also covers molecular characterization of allergens and the current studies in immunotherapy.

The wide range of fields covered in this volume illustrates the importance of aerobiology. However, the topics are not arranged with any specific aspect in mind. There is scope for improvement by reducing the typographical errors and improving the quality of paper and the production of photographs. Even though the references quoted by various authors are comprehensive, there are serious deficiencies concerning recently published literature. The inclusion of subject index and abbreviations used in the book could have added to the quality of the book.

In spite of all deficiencies the book gives a lot of current information on various aspects of aerobiology and is an important edition for the students working in this field. The book is not priced but I hope it will be within the reach of any Indian student and will be inspiring to the research workers in aerobiology.

S. V. GANGAL

*Centre for Biochemical Technology,
Delhi University Campus,
Mall Road, Near Jubilee Hall,
Delhi 110 007, India.*

***In vitro* Culture and its Applications in Horticulture.** H. Vidale (coordinator). Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. 1995. 231 pp. Price: Rs 360.

In vitro culture of economically important crop species is a key area of applied research in biotechnology. Micropropagation technology is the best example of direct applications of research outcome in different plant species. During the past decade many '*in vitro*' culture techniques have been scaled up to commercial level and now various commercial companies are producing a large number of propagules of selected rare clones of various plant species, among them ornamental and horticultural crops being the main candidates. In these species full-fledged technologies are standardized and are being commercially exploited. A lot of information is available in the form of research and review articles. There are many books available on the *in vitro* culture of ornamental, horticulture, woody perennials, and important crop species. The book under review is an addition to the voluminous literature already existing. The book is contributed by a team of teachers, researchers and practitioners of commercial tissue culture from Angers, France.

This book covers the various aspects of *in vitro* culture application, main methods of laboratory set-up, media preparation, the choice of explant, and physiological phenomena related to *in vitro* culture. The genetic aspect of tissue-culture-raised plants has also been considered

The first part of the book is on the history, basic physiology of differentiation and redifferentiation, the role of hormones, the choice of explant as per age, size, position and response in culture. One of the chapters is on nutritional aspects, such as chemical composition of the medium and its physical characteristics (e.g. liquid/solid environment, media and gaseous exchange). Physical characteristics of the culture environment such as the intensity, quality and duration of light, and the temperature are also discussed.

The chapter on the technology of *in vitro* culture includes information on laboratory set-up and instruments/equipment for *in vitro* culture, the complete laboratory procedures for preparation of glassware, stock solutions, media and their sterilization. Procedures for the preparation, disinfections are also discussed.

Meristem culture is illustrated with 'Japanese artichoke' as a model system and also micropropagation, giving an example of *Saintapaulia*. Also covered is the general background of techniques and

significance of anther/pollen culture and protoplast culture.

The chapter 'Biotechnologies in horticulture: Possibilities and perspectives' describes modern methods such as protoplast fusion, haploids, somaclonal variation, and molecular genetics. There is also a chapter on gene transformation and somatic embryogenesis, and on genetic aspects of *in vitro* regenerated plants.

The book contains an informative article on the mycorrhiza and *in vitro* culture, where the types of mycorrhiza, its association with specific plants, and applications of mycorrhization have been explained in detail. There is one chapter which deals with application of *in vitro* culture in disease elimination and disease resistance.

Lastly, advantages of *in vitro* culture, its economical aspects and constraints are presented. There is an account of the present and future status of *in vitro* culture of ornamental plants, woody plants and fruit trees. A list of plants for which technology has been commercialized is given.

Overall, the book covers information on general techniques of *in vitro* culture useful for beginners and students. The information could have been better organized and repetition of many aspects avoided. Although recent applications and constraints of *in vitro* culture have been covered, they should have been described in more detail so as to make the information more complete. As the title of the book indicates, an account of *in vitro* technologies for economically important horticultural crops and significance of *in vitro* culture pertaining to specific problems in these crops would have been more useful.

Tissue culture and its commercial exploitation are emerging fields and this book will be useful to people entering these fields.

R. S. NADGAUDA

*Plant Tissue Culture Division,
National Chemical Laboratory,
Pune 411 008, India.*

Erratum

Testosterone metabolism by rhesus monkey spermatozoa: Effects of antifertility agents

M. Rajalakshmi, R. S. Sharma, S. Mokkapati and P. C. Pal

(*Curr. Sci.*, 1995, 68, 1121)

The title of the article and the names of the authors were inadvertently left out from the Contents of the 10 June issue. We regret the error.

— Editors