REVIEW

L. Bos, Introduction to plant virology. Pudoc, Wageningen, in conjunction with Longman, London/New York, 1983. 160 pp. (including 2 appendices, 7 pp. of index and 63 illustrations) + 22 colour plates. Price Dfl. 35.00/£ 6.95.

Plant virology is in a phase of intense activity. However, there are few introductory texts on the subject. Dr Bos has now written such a book 'for prospective and practising plant pathologists and biologists, and for workers involved in plant protection'.

The early chapters describe the beginnings of plant virology, the adaptation of Koch's postulates to virus diseases and the effects of viruses on plants, illustrated by an excellent set of colour plates. Chapter 4 describes natural and experimental transmission of the viruses. However, the only particles found for certain in the foregut of the aphid *Cavariella aegopodii* are those of anthriscus yellows virus, not parsnip yellow fleck virus, and carrot mottle virus is persistent in aphids, not semipersistent (p. 42). In Chapter 5, on the properties and purification of virus particles, I would question the restricted definition of molecular biology (dealing with 'the physical chemistry of vital functions'); the use of 'transport RNA' for transfer RNA; and the mention on p. 52 of 'soluble' plant protein up to 185S (18S would be more usual) and of 'middle component' (? insoluble material). Serology and electron microscopy of the viruses are outlined in Chapter 6 and particle structure and virus replication are described in Chapter 7. However, proteins with a mol.wt of 180 000 must contain more than the 600 amino acid residues specified on p. 80, and alfalfa mosaic virus and ilarviruses contain three genomic RNA molecules not four, the fourth being sub-genomic. Chapter 8, 'Order out of chaos', deals with several related matters: virus diagnosis, characterization, classification and nomenclature. Finally, there are two useful chapters on virus ecology and control, including the roles of various organizations, followed by an epilogue and an informative appendix on the membership and characteristics of the main groups of plant viruses.

Despite some blemishes the book should serve its purpose well, although I confess I found some passages were not very easy reading, and the choice of words occasionally inappropriate: edgy (? angular, p. 29), bundle (? beam, p. 52), coagulation (? aggregation, p. 73), multigenomic (with multipartite genome, p. 81), settlement (? infestation, p. 116). There is also a sprinkling of printer's errors.

Dr Bos is not merely a detached observer of the subject. He refers to 'many mysterious viruses', 'the riddle of life' and one senses a crusading spirit when he writes that 'Man must deal carefully with nature and act as a steward rather than an exploiter'. Food shortages, economic reality, political pressures and weather changes will no doubt ensure that this ideal is not attained and that increasing numbers of crop virologists will be needed to tackle the resulting disease problems. All such newcomers to the subject will benefit from reading this book.

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