# Book review

L. Bos, 1978. Symptoms of virus diseases in plants. Centre for Agricultural Publishing and Documentation, Wageningen, Netherlands. Third edition (revised); 225 pages of text of which 43 pages of index, cloth bound. Price Dfl. 45.

In plant pathology, the importance of symptomatology is in inverse proportion to the size of the disease agents. In the study and the control of diseases caused by the smallest pathogens, viruses and viroids, knowledge of symptoms induced in plants is virtually indispensable. And, as descriptions of symptoms play an important role in communication between plant virologists, a clear and generally accepted terminology in this field should be available.

The author, being aware of this need for a long time already, wrote the first edition of this book in the early sixties. In 1970, the book was completely rewritten for a second edition and now the third edition is published, thoroughly revised and updated.

A short introductory chapter (3 pages) outlines the nature of viruses and stresses the relevance of symptomatology. In Chapter 2 (28 pages), dealing with pathogenesis, the concept of disease is defined, various aspects of the diseased state of the plant are discussed and general pathological terms are explained. Very instructively, the etymology of many of these terms is given too as indeed in the entire book.

The third chapter (105 pages) constitutes the main part of the book. In this chapter, a comprehensive survey is given of the multitude of phenomena associated with virus diseases. Diseases caused by viroids and mycoplasma-like organisms are also included. Biochemical and metabolic changes, macroscopically visible deviations, and intracellular alterations are separately dealt with. The chapter is remarkably complete in describing and naming all distinct symptom types that have ever been observed. The symptoms are extensively exemplified by the mention of virus diseases with which they are associated and their cause, if known, is given.

In a short fourth chapter (8 pages) deviations resembling those of virus diseases are reviewed. The text part of the book closes with some remarks in a two-page 'Retrospect'.

The references include over 500 titles which are, very informingly, given in full. In addition to the usual subject index, a six-language index of symptom names is included, which may greatly stimulate international use of standard names for symptoms. The six languages are: English, Dutch, German, French, Italian, and Spanish.

The book is effectually illustrated with 71 carefully selected photographs, of which 11 are full colour plates. It is a pity that chapters and paragraphs are not numbered. Despite a distinctive typography of the headings, this omission may make it difficult for the reader to find his bearings in the text.

The text is very elaborate. Only occasionally does the wording seem not quite correct (e.g. in 'to code for one gene') or statements are made which are not fully covered by present knowledge, such as maintenance of the integrated state of bacterial and animal virus genomes being the result of genetic control by the host. As these few imperfections only seem to occur in parts of the book not dealing with the main subject, they do not affect the value of the book in spreading the knowledge of symptoms of virus diseases in plants and to uniform use of symptom names. The book is highly recommended to all those who in some way are concerned with symptoms of plant viruses.

C. P. de Jager