

Book review

J. Palti, 1981. Cultural practices and infectious crop diseases. Springer-Verlag, Berlin, etc. ISBN3-540-11047-X. XVI + 243 pp., 43 figs., 51 tables. Price DM 98.

This book deals with the effect of cultural practices in agriculture on the occurrence and severity of infectious crop diseases. This subject was up till now rather poorly treated in phytopathological literature. During the past one hundred years the emphasis shifted more and more from control of plant diseases by means of cultural practices towards the application of chemicals and the use of resistant cultivars. Due to various well-known difficulties encountered with the latter methods, however, there is a renewed interest in cultural practices, among others in connection with possible development of integrated methods of control. There seems to be a demand for a book of this nature. It deals in a rather compact and systematic way with the principles of manipulating crop diseases by means of cultural practices.

The author has divided the book into three parts. Part 1 (68 pp) considers a number of circumstances and factors which determine the scope for disease management by cultural practices, viz. agro-ecosystems, crop climate, cooperation by farmers, soil, stress and predisposition, crop age and weeds. Part 2 (116 pp) constitutes the main part of the book and deals with the actual cultural practices. After a few introductory pages on the complexity of multiple choice in pest control decisions on the farm and economic considerations follow 13 sections on various groups of farm operations, viz. sanitation, crop sequence, soil amendments and mulches, tillage, crop nutrition, moisture management in non-irrigated crops, irrigation, density of sowing and planting, sowing and planting dates, harvesting, spacing of plots, pruning and grafting, effect of physical barriers, etc. It should be noted that greenhouse conditions are not treated in this book. Part 3 (17 pp) deals with the role of cultural practices in integrated control. It is divided into seven sections, one of which describes an example of a success story of integrated control, viz. about that of hop wilt in England. The various sections in the three parts are again subdivided into subsections, etc. The subject matter of the book is thereby treated very systematically. In this way it is easy to locate particular information which is also facilitated by the indices (pathogen and subject) and by the many tables.

At the same time it is certainly no reading book but a book which has to be studied. The division of the subjects is of course very often of necessity quite artificial. A particular practice may be at home in several sections, which has been dealt with by frequent cross-references. All this keeps the book compact, however, and does not matter if used as source of information. This information is based not only on the 600 references cited in the list of references; it is also based on the results of interviews of and personal communications with about 50 colleagues mainly from Israel, GFR, France and the UK (mentioned in the acknowledgments) as well as on personal experience of the author. If it was not for this book much of this information might have been lost.

It is a very valuable book for everyone interested in the possibilities and scope for cultural methods in plant disease control. That would include those interested in integrated control and 'plant disease management'. Unfortunately its price is relative high, which makes it particularly difficult for students to buy. Study of this book would, however, provide them with much useful information pertaining to the factors influencing disease in agro-ecosystems. For agronomists and horticulturists the book is also very useful provided they possess a good knowledge of general phytopathology.

T. Limonard