

Book review

H. Börner, 1981. Pflanzenkrankheiten und Pflanzenschutz. Eugen Ulmer, Stuttgart. 406 pp with tables and illustrations, a list of handbooks and periodicals and a subject index. In German. Cloth bound. ISBN 3-8001-2492-0. Price DM 27.80.

The extensive field of phytopathology and crop protection is covered by many handbooks and textbooks, periodicals and monographs. It provides a quick orientation for anyone who wants a review on this subject. The present book is chiefly meant for students of agricultural sciences, as a preparation for seminars, courses and lectures. It consists of four main parts. The first part covers general phytopathology. The second one deals with crop protection in its widest sense. The third part is a systematic review of pathogens and phytophagous animals. The fourth part deals with diseases and pests of the most important crops and can be used as a key to field diagnosis: behind each cause a page number refers to a more extended description in part three.

In a small compass the book treats most aspects of plant pathology, including natural and induced resistance with their biochemical backgrounds and a short history of phytopathology. The conciseness of the work compels to omit or shorten many facts in favour of others that are regarded to be indispensable. One may wonder whether the expression 'the serological test' on page 193 is an undesirable shortening. It is obvious that many tests to detect virus infections can be covered by this terminology, including the strongly oncoming, but not mentioned, ELISA test. Two lines below, *Gomphrena globosa* is written as *glubulosa*, one of the not too many printing errors. The conciseness, however, sometimes leads to hardly acceptable generalizations. What is described under 'Chemischer Aufbau' of viruses (page 188) only holds for oblong, helical types, not for isometric ones. An isometric particle might therefore be placed in Fig. 43 without loss of space on page 189. This page suggests that embryonic tissue remains free of virus, which, however, is not always the case.

After the introduction of virus into a cell, RNA does not always multiply in the nucleus (page 191). Important vectors of plant viruses (like potato leafroll virus) are aphids such as *Myzus persicae*. The author uses the obsolete name *Myzodes persicae*. More examples of archaic nomenclature can be found on page 270 (genera *Rotylenchus* and *Pratylenchus*). A minor objection could be made to Fig. 59b (detail of the spear of a nematode) which is no longer considered to be correct.

A few omissions could be redressed in a next issue. Although most molluscicides are used against slugs, carbamates like methiocarb are effective against the more resistant snails (page 133). Page 70-72 give a survey of cultural measures to stimulate plant health. Although recent literature reveals many relevant effects of mineral nutrition of the host plant on insect development, no examples are given.

In other respects the author gives a lively picture of a changing situation using a limited number of facts, as in the treatment of defense mechanisms (page 41). This makes the book very readable. Main control measures for all discussed diseases are provided. Such parts are vulnerable, as these are apt to change frequently. In Western Europe control of cereal aphids, for instance, now occurs as soon as before flowering on more than 30% of the haulms one or more aphids are found (after flowering on more than 70%, page 311). Nevertheless, the general impression in glancing through the pages is definitely positive, tables and figures being clear and elucidating. Provided the reader will complete his knowledge with available literature on more detailed subjects, this book is a very useful introduction to different fields of phytopathology.

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